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AMERICAN MILK REVIEW

VOL. 5 No. 7 JULY, 1943

AN URNER-BARRY PUBLICATION

The "Air-Tight" Separator effects a Four-Fold Saving in the Butter Factory

LEAVES LESS FAT IN SKIM-MILK

REDUCES CHURNING LOSS

ELIMINATES LOSS OF SKIM-MILK

LOWERS OPERATING COSTS

EXHAUSTIVE testing by modern methods proves that a De Laval "Air-Tight" Separator in the average medium-to-large-size butter factory will save enough butterfat to pay for itself within approximately two years. The comparison is made with *new* separators of *any* other type. Where old separators are replaced the time required for an "Air-Tight" to pay for itself will, of course, be much less.

Just as the "Air-Tight" produces more and better cream for fluid purposes, so it produces more cream having greater churnability for butter-making purposes. Hence there is less fat lost in butter-milk as well as in skim-milk. These savings of the "Air-Tight" Separator are a demonstrated fact.

Further large savings, depending upon the present experience of the plant, result from savings of skim-milk, power, oil, attendance and maintenance expense. In some cases skim-milk savings alone have been sufficient to pay for the "Air-Tight" in little more than a year.

There is no doubt about it—the De Laval "Air-Tight" Separator is today's outstanding investment for increasing profits.

Why not ask for complete details?

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165 Broadway, New York 427 Randolph St., Chicago
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DE LAVAL SEPARATORS

"AIR-TIGHT" and "WORLD'S STANDARD" TYPES

AMERICAN MILK REVIEW

Volume 5 NEW YORK, JULY, 1943 No. 7

Dairy Products Allocations Set

WFA Issues Twelve-Month Apportionment Plan for Butter, Cheese and Leading Concentrated Milks Among Claimant Groups—All Subject to Later Review

WASHINGTON, D. C.—Schedules were issued here July 12th by the War Food Administration under which the anticipated supplies of seven key manufactured dairy products during the next twelve months are to be allocated among civilian, military, Lend-Lease and other leading groups having a call upon such stocks. This is the first time that the WFA has attempted the allotment of foodstuffs on a yearly basis. It is expected to be followed very shortly by similar allocations of meats, canned fruits and vegetables, and perhaps eggs and some other products.

The entire schedule, which was developed on the basis of the relative urgency and importance of all claims for these dairy products, represents the requirements of all claimant groups as adjusted by the allocating committee to total anticipated supply.

The entire setup is, of course, predicated upon present estimates of coming output, and can be considered as virtually exact only for the quarter of the year which we are now entering. Before the start of the last quarter of 1943 the situation will be reviewed, with possible adjustments if deemed necessary, while requirements for the first 1944 quarter will be reexamined on the basis of the latest available production and stock reports.

Leading Apportionments Summarized

For the twelve months beginning with July civilians are to have available, based on estimated production, about 1,670 million pounds of butter, or approximately 8 out of every 10 pounds of butter produced during this period. The armed forces have been allocated 1½ pounds out of every 10, and the Russian Army will receive a half pound out of 10.

How deeply the present governmental butter production ear-marking rate of 50 per cent monthly will be cut during the coming three quarters cannot yet be gauged. It will unquestionably be sharply reduced from August 1 on.

Of cheese, civilians will get about 508 million pounds—5½ pounds out of every 10 produced. The remaining 4½ pounds will be divided among military (1.1 pounds), countries receiving defense aid, and other export groups, such as the Red Cross and U. S. territorial possessions, with our Allies getting the heaviest share.

Here again there is no indication as to how much reduction can be expected in the present governmental 70 per cent monthly production earmarking.

Of the 69,000,000 cases of evaporated milk expected to be available for consumption during the next twelve months, civilians have been allocated 30,000,000 cases, or about four and one-third cases out of every ten produced. Military and war services will get almost as much evaporated milk out of the next year's supplies as civilians—slightly more than 24,000,000 cases, or about three and one-half out of every ten produced. Much smaller amounts will be made available to our Allies and other export groups.

Condensed and Dried Milk

Civilians will get the major share of prospective condensed milk supplies — approximately two-thirds of the available 300,000,000 pounds. None has been allocated for military use. Our Allies and other export groups will get the remaining one-third.

The largest allocation of spray

Herewith is a table showing the allocations of the seven manufactured dairy products, with comparisons between estimated civilian consumption of these products in the next twelve months and consumption last year and in 1935-39:

WAR FOOD ADMINISTRATION

Comparison of Allocations and Allocable Supplies of Specified Commodities During the the 1943-44 Fiscal Year

Commodity	Unit	Allocation July 1, 1943, to June 30, 1944: ‡Total allocable supplies	Contingency Reserve	Military and War Services	Lend-Lease	†Other exports & shipments	U. S. Civilians	Apparent Civilian Consumption: 1942	1935-39 Avg.
Dairy—	**(Million lbs.)**								
Butter, creamery & farm		2,127.6	10.0	316.0	123.2	8.3	1,670.1	2,074	2,170
Cheese, all		914.6	5.0	101.4	169.7	130.4	508.1	838	720
Condensed milk		294.3	11.5	.....	41.8	29.0	212.0	267	209
Evaporated milk†		3,002.4	25.0	1,056.0	342.8	273.6	1,305.0	2,301	1,954
Dried whole milk		143.1	.....	59.4	38.1	25.5	20.0	17	17
Dried skim (spray)		291.0	.....	46.2	135.8	19.0	90.0	*305	*246
Dried skim (roller)		231.2	2.0	15.8	38.4	90.0	85.0		

*All dried skim. †43.5 pounds to the case. ‡Total allocable supplies include estimated production, plus stocks at the beginning of the year less required stocks at the end of the year. †Includes Red Cross and foreign relief and rehabilitation.

process dried skim milk is to the United Nations. Approximately 136,000,000 pounds of a prospective 291,000,000-pound supply will be shipped under Lend-Lease. About 90,000,000 pounds have been allocated to U. S. civilians, 46,000,000 pounds for military use, 14,000,000 to the Office of Foreign Relief and Rehabilitation and 4,000,000 pounds to U. S. territorial groups.

Of the 231,000,000-pound supply of roller process dried skim milk, 85,000,000 pounds will be available for domestic consumption and 90,000,000 pounds allocated to Lend-Lease Administration for the Office of Foreign Relief and Rehabilitation. Our Allies will receive about 38,000,000 pounds and American armed forces will need nearly 16,000,000 pounds.

Production for the next 12 months of evaporated and condensed milk, cheese, and dried milk is expected to be greater than during the pre-war years (1935-39). Production of butter probably will be slightly less. Cheese output, however, is expected to be up 35 per cent, evaporated milk 45 per cent and all milk powder 175 per cent.

All Needs Carefully Considered

In accordance with the need to use food as a weapon of total war, supplies of these dairy products are allocated to the "fronts" where they are most needed and where they will do the most good.

Dried milk, for example, is exported in large quantities, WFA officials said, because (1) its nutrients are vitally needed by our Allies both for civilian and military personnel, (2) supplies of fluid milk available to Allied and "friendly" nations are extremely limited, (3) it ships well and takes up a relatively small amount of cargo space, and (4) American civilians are able to get their milk in other forms—as fluid milk, cheese, butter, etc.—to maintain good health.

Civilian consumption of all allocated dairy products, except condensed milk and whole milk powder, will be slightly below average 1935-39 consumption. On condensed milk and whole milk powder, civilian consumption will be slightly higher. Civilian fluid milk consumption is at an all time high.

Subsidies Threatened

Dairy Industry Confused as Congress First Votes Ban but Finally Approves Continuation of Plan

Great confusion and uncertainty marked the butter and general milk and dairy products situation during late June and early July through rapidly vacillating Congressional moves bearing on the Administration's existing and projected price roll-back and subsidy operations.

Continuation of the existing subsidy-roll-back program on butter was seriously threatened for a time by decisive votes in both houses to throw the scheme out the window. This, however, failed to survive a strong Presidential veto, and after blowing hot and cold during the closing days before adjournment, Congress voted to go along with the Administration's program.

Extremely widespread opposition has been expressed to the roll-back-subsidy scheme, not only within the dairy field but throughout agriculture in general and in a great many other quarters. Press reports now indicate that the Administration may give up efforts toward its further extension to products other than butter and meat, even though now authorized to do so.

Civilian supplies of butter rule in general drastically short, especially in the east, with probably not more than 30 to 35 per cent of New York City's receipts free from production ear-marking obligations.

Conservative estimates place the total of United States cold storage reserves of butter July 1 at around 155,000,000 lbs., and possibly more. The great bulk of these goods was owned by governmental agencies, which, however, have not yet been drawing on them to any real extent. There is great hope that the production set-aside percentage will be sharply cut from August 1st on. DPMA reports purchases through July 8th of 143,365,507 lbs., of which 23,574,092 lbs. had been transferred to FSCC.

MILK CAN DISTRIBUTION

WFA Issues 1944 Provisions for Quarterly Sales by States

Milk can manufacturers will distribute their 1944 production on the basis of their distribution into states and territories in 1941 and 1942, under an amendment by the War Food Administration. The 1944 milk can distribution program is provided in Amendment 3 to Food Production Order 3, as amended issued June 30.

The amount of milk cans each manufacturer may distribute within a state will be based upon gross sales in that State in 1941 and 1942. The 1943 distribution was made on the basis of sales to individual distributors. Another change places the distribution on a quarterly, rather than yearly basis, conforming to the 1944 production program which also is on a quarterly basis.

The amendment also directs manufacturers to withhold a reserve from which unusual needs occasioned by shifts in dairy production or population, can be met. Between July 1 and December 31, 1943, the reserve will be 15 per cent of the quarterly production. This will increase to 30 per cent for the first two quarters of 1944, unless the War Food Administration specifically orders a disposition of the reserves, which are established by quarters. The reserve for the quarter will be released automatically 15 days before the expiration of the quarter, according to the order.

As in 1943, milk cans will be rationed when sold for use.

LABORATORY MATERIAL

WPB Amendment Orders Affect Priorities and Preference Ratings

Priority assistance for materials required by scientific and technological laboratories and deliveries of laboratory equipment are affected by two amended orders (P-43 and L-144) issued recently by the WPA.

Preference Rating Order P-43 as amended assigns preference ratings and an allotment symbol to laboratories, as defined in the order, to assist them in obtaining all materials and equipment needed to carry on scientific or technological activities.

All laboratories receive a preference rating and allotment symbol under the amended order. However, those laboratories carrying on work of great importance to the war effort are entitled to obtain a serial number under the order; and if they obtain a serial number, they may use a higher preference rating than other laboratories. (Serial numbers assigned under the former Order P-43 are valid under the amended order without reapplication.) Also, all laboratories owned or operated by the Army or Navy receive high preference ratings.

Today's amended L-144 restricts the delivery of any one item or quantity of the same item of laboratory equipment having a value of $50 or more, or the delivery on a purchase order of laboratory equipment worth $200 or more, even though no item or quantity of the same item on the order has a value of $50 or more, unless authorized by the War Production Board on Form WPB-1414 (formerly PD-620). Both orders as amended were issued June 26th.

MARKET NEWS TO WFA

The War Food Administration has issued instructions that all market news reports heretofore issued by the Department of Agriculture be hereafter issued in the name of the WFA.

Monthly commodity summary reports prepared by the Bureau of Agricultural Economics will be issued in the name of the Department of Agriculture.

Editorially Speaking....

Sane Suggestions

SOUND indeed are the observations on what is certainly the country's Number 1 home front problem offered by RALPH E. FLANDERS, prominent industrialist of Springfield, Vt. and member of the Board of Economic Stabilization at Washington, in the course of a radio address during a recent General Electric Farm Forum conducted at Schenectady, N. Y. Speaking to what we trust was a large audience, he thus aptly summarized the perilous situation in which we find ourselves:

"Aside from the danger to life and limb for our soldiers in the field, the greatest danger facing the American people is the destruction of their savings by inflation. Unlike the peacetime situation, in total war there are no natural forces available to balance cost and price, supply and demand. The balance must be made artificially.

"We can simplify the problem of price control and, at the same time, increase governmental income by confining our activities to the elements of a simplified cost of living and applying very heavy sales taxes to everything else.

"Finally, by putting all three elements of the food problem—production, rationing, and price—under one head with power to act, and by using subsidies primarily to increase output, we can bring the price control of food and the cost of living, of which it is the largest part, down to a job of small enough size so that it can be practically managed.

"To accomplish these ends by the best possible means is the civilian problem of greatest practical importance to every American citizen, whether on the farm or in the factory."

It is disheartening that the conflict and confusion of ideas, policies, and authority among the madcap mixture of Administration agencies which has produced our desperate food muddle cannot be jettisoned before it is too late, and a single coherent and coordinated directive power be placed in overall charge of the colossal task of developing and steadfastly carrying through a foodstuffs production, pricing and equitable distribution program implementing the sane objectives so clearly delineated by MR. FLANDERS.

Ranging Far Afield

WHEN the Office of Defense Transportation issued Order No. 17, it specified that the number of retail milk deliveries shall be limited to four each week. No differentiation was made between gasoline-consuming units and horse-drawn vehicles. In some instances protests were made to regional ODT offices that, in view of the fact that conservation of gasoline was the underlying motive of the control, horse-drawn deliveries should be exempt. The reply, in effect, was that even though horse-drawn units obviously consumed no gasoline, the operators of such on a daily schedule would have an unfair trade advantage over the operators of motorized equipment who could only service their customers four times a week!

Thus has the ODT abrogated unto itself the authority to say what is and what is not a fair trade practice. Heretofore we have always understood that the Federal Trade Commission, after exhaustive hearings, held—and exercised well—the power to issue cease and desist decrees if the evidence proved that unfair trade practices prevailed.

This phase of ODT Order No. 17 clearly illustrates how far afield some wartime agencies may go with their powers,—in this instance veering from the vitally important responsibility of conserving motorized transportation facilities of the country during war, to the dictation of policies in respect to scarcely logically related operations. Quite remote it seems from the original intent of Congress in framing legislation to further the war drive and speed the victory!

Conservation Effects Doubtful

IN LINE with this whole matter; there is considerable doubt as to the amount of gasoline being saved by compliance with ODT Order No. 17. Due to the many ramifications in milk distribution, and the shortness of the general period of operations under the changed system, no positive figures of fuel conservation resulting from the order have as yet been revealed. On the other hand, some quarters have obtained reports that *more* gasoline was actually being consumed through restricted service than when retail deliveries were carried through on a daily schedule. And it is certain that when, as in the New York Metropolitan area, no loss of employment is permitted under the compliance terms, there is small chance for the desired man-power saving to be achieved.

In one instance of which we have heard directly, a milk dealer found that his trucks burned fifty-seven more gallons of gasoline *daily* with deliveries restricted, than they did when covering their routes every day. His regional ODT office was advised of this condition. This dealer stated that one of the ODT representatives lightly dismissed the importance of the facts, observing that fifty-seven gallons of gas are not much anyway, to which the dealer retorted that "fifty-seven gallons of gasoline for three hundred and sixty-five days a year would fly a bomber a good many miles." The distributor in question still complies with ODT No. 17, and still uses more gas than previously.

Of course this is but one case out of many. However, it would be interesting indeed to obtain a picture of the pattern of widespread experience under the control. Theory and practicability are often not compatible.

Boon to the Milk Flow

SO FAR this year the dairy industry has been fortunate indeed in enjoying lush pastures to aid it in the drive to achieve greatly expanded production goals. Ample rainfall and good growing weather have been responsible. And with the fine grass the cows generally are in the pink of condition, producing record yields of milk. Scenes such as depicted on the front cover of this issue of the REVIEW have been and, happily, still are widespread throughout the country.

But pastures alone do not maintain herd production throughout the year. Fine indeed for the flow of "strawberry milk", but more

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Gordon Urner - - - - - - - - - Editor
A. C. Dingwall - - - - Associate Editor
J. C. Taber - - - - Advertising Manager
G. Q. Burkett - Asst. Advertising Manager

Mid-Western Representative
Guy W. Whitcomb
520 N. Michigan Ave.
Chicago
Phone: Superior 1042

Far Western Representative
J. A. Kendall
2676 Terminal Annex
Los Angeles
Phone: Atlantic 1-7272

substantial feed must be supplied to the cows if their output is to be maintained at a high average. And right there is the chief cloud on the dairy horizon, if we are to believe the reports from agricultural leaders in all sections of the country. Acute feed shortages, especially of protein feeds, are predicted for this fall and winter, and some observers are so pessimistic as to expect a sharp drop in the milk flow this summer as soon as the pastures lose their present lushness.

To compensate in some measure for the impending feed shortages dairymen are being urged to conserve and harvest as much as possible forage and roughage crops. While not so conducive to milk production as balanced rations, these feeds will help to some degree. In the meantime, we may well be doubly thankful for the abundant pasturage that has prevailed this season.

Dealers Can Help

PURSUING further some means of minimizing the impact of threatened feed shortages to come, particularly in the eastern states, milk dealers may well push a program to hold down their impending effects as much as possible. Work undertaken now with producers will aid materially in this direction. By stressing to their suppliers definitely proven dairy farm management practices which are conducive to good yields, distributors can help safeguard against possible critical milk shortages later on.

Recommendations which will be useful in averting some of the loss in production due to a lack of protein feeds are: Provide abundant pastures for the longest period of time; feed grain rations in proportion to the milk yield of each individual cow; provide silage and legume hays; supplement other scarce proteins with soy beans; dispose of unprofitable producers; raise calves on a minimum amount of milk, using other milk-saving feeds; and have the cows dry for two months before refreshening.

Of course it must be conceded that every dairy farmer cannot follow through with all of these recommendations, but if the majority adopt just one or several of them much good will have been accomplished in making the anticipated shortage less serious than it might be otherwise. Milk dealers, in direct contact with the dairy farmers, can do much to further the job.

Dr. Dahlberg to Ithaca

DISCONTINUANCE of the dairy work at the New York State Agricultural Experiment Station at Geneva, N. Y. on July 1 in some respects was received as regrettable news by quite a few in the dairy industry, notably in this area. For many years the valuable research carried on at this experimental depot, so to speak, under the direction of the eminent DR. A. C. DAHLBERG has earned wide acclaim for its contributions to this vast industry in the fields of dairy manufactures, feeding, milk production, breeding, and for its studies in the characteristics of milk and dairy products under variable conditions.

However, with the passing of the dairy work at Geneva, DR. DAHLBERG is being transferred to the Cornell University Agricultural Experiment Station at Ithaca, N. Y. and, fortunately, the good work which he has been carrying on will thus be continued. Announcement has been made that the dairy herd at Geneva will be disposed of, but at Ithaca there is also a splendid herd to provide the basis for continued experiments on management and practices, such as two or three milkings daily, hand vs. machine milking, timing of machine milking, feeding and other dairy husbandry studies, to name but a few.

To the Experiment Station at Geneva, and to DR. DAHLBERG and his associates, the dairy industry owes much. It is gratifying to know that the important work in its behalf will be continued at Ithaca. What is the Geneva Station's loss will be Ithaca's gain.

Patents Ruled Void

U. S. Circuit Court Outlaws Validity of Those Held by Wisconsin Foundation for Vitamin D Process

The United States Circuit Court of Appeals in San Francisco, July 1, declared that the patents held by the University of Wisconsin Alumni Research Foundation covering the processing of Vitamin D by the irradiation method were invalid.

It was brought out in the case that the Foundation had established a licensing system including the payment of royalties on the patents that had been obtained by Dr. Harry Steenbock and which were turned over to the Wisconsin Alumni Research Foundation. It is said that the Foundation had obtained more than $7,000,000 in royalties from about 250 licensees.

The Circuit Court of Appeals case developed after the Foundation had been favored with a decision in its suit against Vitamin Technologists, Inc. in Los Angeles for an injunction and an accounting, alleging an infringement of its patents.

Vitamin Technologists, Inc. appealed the decision which resulted in the Circuit Court ruling against the Foundation.

Judge Denman's Opinion

In his opinion Judge Denman wrote:

"Primarily it is to be noted that the claim applies to all ultra-violet rays. It is not confined to such rays as are produced by a particular medium, such as the quartz lamp. It includes, of course, the ultra-violet rays of the sun.

"Many years before the application, science had discovered that the sun's rays shining on cut alfalfa hay cured in the field was an anthirachitic food for pigs.

"Steenbock himself verified the facts concerning alfalfa by the discovery that when cured out of the sunlight it lacked the antirachitic quality exerted when cured in the field.

"We thus have the inventor proving that it is from the ultra-violet rays of the sun that the alfalfa acquires its vitamin D, that is, by the process claimed by him as patentable.

"If the patent be valid, it is thus seen that the farmer is an infringer when he exposes his cut alfalfa to the ultra-violet rays of the sun long enough to make it antirachitic.

"So also the long previously established practice of the radiation of milk by the mercury vapor lamp would infringe the monopoly of Steenbock's patent because, admittedly, in its customary use it would produce in the milk vitamin D.

"The clear vision of such a scientific investigator as Dr. Steenbock well may create vastly higher indebtedness from the world of human beings than owed to the inventors of mechanisms and processes to whom his vision is the inspiration.

"However, our Congress as yet has provided no system of reward to the pure scientist, while it has to the inventor for his processes and mechanism. Steenbock's valuable scientific certitudes are discoveries, but they are not inventions within the meaning of the term 'invention' as used by the Congress in its patent laws."

F. S. KELLEY DEAD

Pennsylvania R.R. Dairy Traffic Agent Passes After Short Illness

Word has reached the Review office of the death on Sunday, July 11, of F. S. Kelley, Dairy Traffic Agent of The Pennsylvania Railroad Company, with headquarters here. Mr. Kelley had been ill but a short time, and had been absent on sick leave.

He entered the service of the railroad at Milwaukee, Wisconsin, during 1906 and has been Dairy Traffic Agent at New York City since 1917.

Funeral services were held at 8:30 P.M., Tuesday, July 13, at the parlors of Haeberle & Barth, 971 Clinton Avenue, Irvington, N. J. Interment was made on July 15 at Boston, Mass., where he was born.

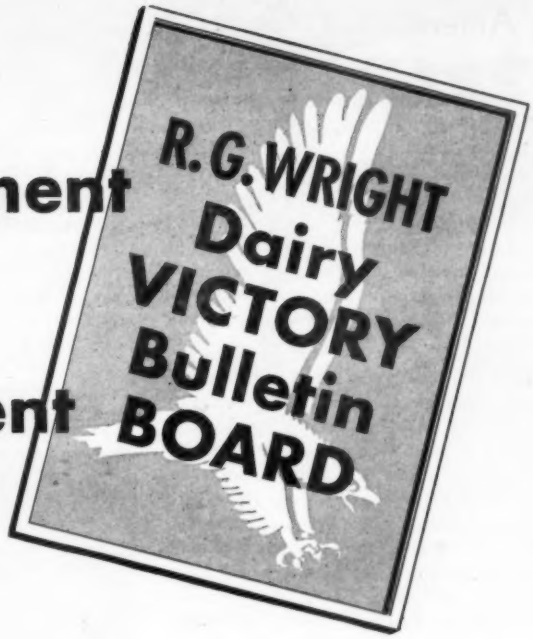
Mr. Kelley had many friends and acquaintances in the dairy trade, not only in the New York Metropolitan area, but throughout the producing areas in the mid-west.

NEW PLANT OPENS

Cameron, Mo.—The new plant of the Central Farm Products Co., built on the Old Roller Mills lot here, opened for business recently.

What dairy equipment do you need

What idle equipment could you sell



Although direct war requirements place severe limitations on the manufacture of new dairy equipment, there is now a practical, sensible way to get what you need—and to sell what you don't need. This method is through a Clearing House, established and maintained by the Dairy Industry Supply Association, and sanctioned by the U. S. Department of Agriculture.

The sole purpose of this Clearing House is to help dairymen acquire serviceable equipment that is now standing idle, and thus to maintain the best possible service to the public under war conditions.

Help Yourself and Your Industry

If you need equipment now, tell the Clearing House about it. If you have idle equipment that can be put into service, the Clearing House can probably help you sell it at a fair price and thus enable some other dairyman to *do a better war job.*

Simply send the coupon today for one or more copies (free) of the EQUIPMENT REPORT. This report provides space for stating exactly what your requirements are (or what machinery you are willing to sell).

TO GET EQUIPMENT—OR SELL IT—USE THIS COUPON

Please send me free of charge _____ *copies of the D. I. S. A. "Used Equipment Report."*
State Number

My Name _____

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Important note to dairymen: Kindly address this coupon to:

DAIRY INDUSTRY SUPPLY ASSN.
ALBEE BLDG., 1426 G ST., N. W., WASHINGTON, D. C.

THIS ADVERTISEMENT *has been prepared and paid for in the public interest by* R. G. WRIGHT CO., INC., BUFFALO, N. Y. *Manufacturers of Can Washers... Bottle Washers... Pasteurizers ... Surface Coolers... Weighing and Receiving Equipment... Sanitary Pumps... Conveyors... and other Milk Plant Equipment.*

Amend N. Y. Order

WFA Alters Milk Pricing Formula Terms to Compensate for Butter Subsidy Program

Washington, D. C.—The War Food Administration has amended the milk marketing order for the New York milk shed so as to protect producer prices for fluid milk, taking into consideration price roll-backs and subsidy programs on dairy products at the processor level. The amendment became effective June 24.

The amended order maintains current producer price levels by making it mandatory that any subsidy (or similar) payments be included in market quotations in computing classification prices and butterfat differentials. The Class 1 price in the New York milkshed is based on the prices of butter and dry skim milk and, with the lower wholesale price on butter, would have declined automatically with the use of the new quotation in figuring the fluid milk price. The amendment does not affect consumer prices of milk.

Producers in the New York milkshed approved issuance of the amendment by more than the required two-thirds of those voting. A preliminary report shows that of 26,192 producers voting, 26,158 were in favor of it; 34 were opposed.

A similar amendment has been written into the marketing orders covering each of the other nineteen Federally-regulated milksheds.

WAR-TIME DAIRY BARN

Design Permits Substantial Saving of Essentially Needed Metals

The Department of Agriculture has developed plans for a dairy barn that uses minimum quantities of critical materials. Farmers who need to build barns may obtain the plans—prepared by engineers of the Agricultural Research Administration—in a leaflet, "A Wartime Dairy Barn". A free copy may be obtained from the U. S. Department of Agriculture, Washington, D. C.

The basic plan in the leaflet is for a barn 34 feet by 62 feet which can be built with 9,000 pounds less metal than is commonly used in such a structure. Provision is made for constructing the building so that metal equipment such as pipes can be put in with little inconvenience when they are available. Farmers are urged to consult with the County Agent and the County U.S.D.A. War Board regarding use of critical materials.

The leaflet (No. 232) is illustrated with photographs and drawings and has plans and dimensions of the first floor, of two-part or "Dutch" doors, hinged hay door, stanchions, pens and mangers.

The Department also has a new folder which tells how to make fences and gates with a minimum of metals. Prepared by George L. Edick of the Agricultural Research Administration, it contains drawings and dimensions for different styles of fences, gates, locks and hinges, some made entirely of wood.

WITHHOLDING TAX CALCULATOR

The timely Mono Withholding Tax Calculator, illustrated herewith, which was conceived and worked out in the Mono Service Company's accounting and payroll departments, is said to be greatly appreciated by the firm's customers and friends in the dairy industry to whom it has been sent.

Mr. Wright of the company advises that as long as the supply lasts the concern will be happy to send one to any payroll executive that writes in.

The reproduced photo shows Miss Isobel Watson, Mono's efficient timekeeper, using here rapid Withholding Tax Calculator.

Two figures, indicating the class of exemption and the number of dependents, are placed on addressograph plates which are used on wage cards, pay envelopes, pay sheet and receipts. Quick reference is made to these figures and with the calculator they are located in conjunction with the wages earned. The withholding tax deduction is then read directly in the angle of the calculator slide. It is also useful without addressograph equipment.

BLAMED FOR TEMPERATURE

Two milk truck drivers accused by New York City Health Department inspectors of failing to maintain the temperature of their milk not higher than 50 degrees, as required by law, were apprehended in Municipal Term Court on charges of violating the Sanitary Code.

One driver for the Meridale Dairies, Inc., paid a $10 fine and the other received a suspended sentence.

The driver who received the suspended sentence contended that OPA rulings were responsible. He told the court, "The milk is pasteurized at 1 a. m. The OPA won't let us take it out until 6 a. m. Our unions won't allow us but one cake of ice on a wagon and if we want more ice we have to go to a dock, thereby using gasoline and rubber. What's the percentage of that?"

ODT Takes Action

Makes Mandatory Previous Voluntary Conservation Plan Approved for Calumet Milk Dealers

Washington, D. C.—The Office of Defense Transportation has moved to prevent the threatened dissolution of a joint action conservation plan of 23 dairies serving routes in the Calumet, Indiana-Illinois, area.

Under the plan, approved by the ODT last August, the dairies agreed to serve all retail customers on an every-other-day basis, to make no call backs or special deliveries, and to make no deliveries before 8 o'clock in the morning.

"All of the signers of the plan agreed to put these provisions into effect as soon as the ODT approved," says the ODT in its statement of the case. "But when approval was given on August 21, 1942, two of the participating dairies did not put all of the provisions of the plan into effect.

Would Protect Participants

"These two adopted some of the provisions, but did not conform to certain others, principally the one which provided for alternate-day deliveries. They did try this provision for two days, but abandoned it.

"To protect the patriotic action of those dairies who curtailed services to conserve manpower, trucks and gasoline, the ODT issued the plan as a mandatory order.

"This order (Supplementary Order ODT 17-3) directs the original named carriers (except those who are not now in business) to put into effect all the provisions of their voluntary plan.

"The ODT's order was effective as of July 8."

FREES DAIRY EQUIPMENT

Washington, D. C.—The War Food Administration has authorized manufacturers to distribute 100 per cent of their authorized production of milking machines, farm cream separators and farm milk coolers. Amendment 2 to Food Production Order 3, affecting the distribution and rationing of farm machinery, eliminates a 10 per cent reserve which manufacturers of the three dairy equipment items have been required to hold, but makes no change in the rationing of retail sales.

NEW POWDERED MILK PLANT

Shawano, Wis.—The $125,000 powdered milk plant of the Consolidated Badger Co-operative was expected to start operating here about July 1, according to G. F. Merrill, treasurer of the co-operative. The plant is said to have a capacity of 350,000 pounds of milk daily and will be operated in two eight-hour shifts.

How Patapar is helping solve War packaging problems

For over 58 years the biggest job of Patapar* Vegetable Parchment has been packaging and protecting foods. War needs resulted in a new appreciation of what this remarkable paper can do, and today Patapar has many important war assignments. Most of them cannot be talked about, but here are a few examples:

In manufacturing of gas masks
In manufacture of Plexiglass
Mold liners
Ration C wrappers
Map tracing papers
Ointment box liners
Snuff box liners
Special photographic purposes
Liners for coffee bags
Bulk shortening packaging units
Liners for motor oil containers

Some of the ways Patapar can help you

Butter wrappers
Tub liners and circles
Printer box liners
Bulk corrugated box liners
Milk can gaskets
Milk bottle hoods
Ice cream flavor labels
Cheese wrappers and liners

Patapar is grease-resisting, insoluble, boil-proof. These basic characteristics have been a vital aid in solving difficult problems. Used alone as a wrapper Patapar meets exacting requirements. And with the addition of special treatments, or when used in combination with other materials it can do jobs never before thought possible for paper.

Today, operating at peak capacity, we require more time to process orders. So if you have a special job for Patapar we suggest you let us know your requirements as far in advance as possible.

*Reg. U. S. Pat. Off.

Paterson Parchment Paper Company • Bristol, Pennsylvania

WEST COAST PLANT: 340 BRYANT STREET, SAN FRANCISCO, CALIFORNIA
BRANCH OFFICES: 120 BROADWAY, NEW YORK • 111 WEST WASHINGTON STREET, CHICAGO

Oppose Roll-Back Plan

United Dairy Committee Strongly Protests Continuation of Butter and Other Subsidy Schemes

Chicago, Ill.—Charging that price roll-backs based upon subsidies are a subterfuge and more inflationary than rising prices, the United Dairy Committee has lately issued a demand that Congress refuse to finance a program of subsidization of food prices, M. G. Van Buskirk, Secretary, announced.

The Committee pointed out the need for federal action to revive and protect the meat and dairy industry rather than its present program which seriously threatens shortages that will "undermine the health, strength and morale of our people." Resolutions also were passed urging further consideration of the manpower shortage and immediate action to overcome the shortage of animal feeds.

Scott Meyer, widely-known Holstein-Fresian breeder of Hannibal, Missouri, was elected Chairman at the annual meeting held here. Milo K. Swanton, Wisconsin Council of Agriculture, Madison, Wis., was elected Vice-Chairman; C. R. Schoby, Iowa State Dairy Association, Bode, Iowa, Treasurer; M. G. Van Buskirk, Executive Secretary, Illinois Dairy Products Association, Secretary. B. F. Beach, Michigan Producers Dairy, Adrian, Michigan; Carl Hedges, Indianapolis Dairymen's Cooperative Association, Indianapolis, Indiana; and Oscar Swenson, Association of Local Creameries, Nicollet, Minnesota, were elected directors and members of the Executive Committee.

Some of the Resolutions

Among the resolutions adopted at the July 8 meeting were the following:

The United Dairy Committee, representing the dairy industry of the United States, is unalterably opposed to the roll-back in the price of butter and demands that the price be restored to the level guaranteed by the Secretary of Agriculture until June 30, 1944.

It is our firm conviction that the use of subsidies to offset the roll-back is mere subterfuge and far more inflationary than a continuance of the price level existing prior to June 1, 1943. We, therefore, request the Congress to refuse to appropriate any funds to be used for this purpose.

Pending the time when the Congress takes action to elimate subsidies, we demand that RFC provide a means whereby butter subsidies will be paid promptly to processors in the form of subsidy checks to be payable at any bank which shall be empowered to draw against funds deposited in the Federal Reserve Banks by RFC.

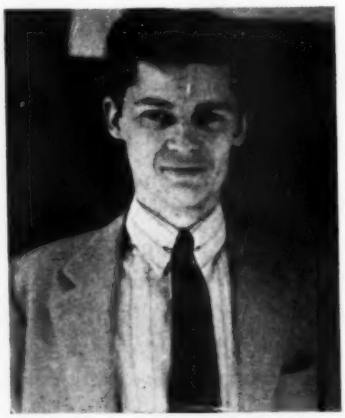
Since food is as essential to the winning of the war as is any other part of our necessary national equipment, we again urge that careful consideration be given to the manpower situation, both on farms and in dairy plants. The attitude in many circles seems to be that the filling of the ranks of military forces comes first and all other considerations second. We again submit that an Army is no stronger than its food supply, and that men equipped through years of training to carry forward the essential activities of production, manufacturing and distribution of foods, must be given first consideration on the part of all Federal agencies having to do therewith.

TO BUILD POWDER PLANT

Dadeville, Ala.—The Carnation Co., of Milwaukee, recently started construction of a milk powdering and butter manufacturing plant here. After some preliminary work, including grading and well drilling, the project was stopped because of the war emergency, following Pearl Harbor.

Officials said the Carnation company originally planned to have an evaporation plant located here, to serve a wide area, but necessary materials and machinery could not be secured and the project was postponed. Now that the necessary priority has been obtained the project will be rushed to completion and will probably be ready for operation some time in October. It is understood that practically the entire output of the local plant will be sold to the Government for use of the armed forces and Lend-Lease.

Working For Uncle Sam



Frank E. Urner, one of the fourth generation of Urners in the Urner-Barry Company, is now in the ranks of the Army to do his part in the struggle to oppose the forces of rule by might. He "joined up" at Camp Dix, New Jersey, and is now receiving his basic training at Camp Fannin, Texas.

Frank has been associated with the company since his graduation from Rutgers University in 1934. He was engaged as a market reporter, statistician and statistical analyst. Since the death of his father in January he was elected to the board of directors. Of sterling character, Frank enjoys the high respect of his associates who wish him the best of good fortune in the performance of his duties while serving his country.

Marks Fiftieth Year

Polk Sanitary Milk Company of Indianapolis Celebrates Half a Century of Service

Indianapolis, Ind.—Fifty years ago a 22-year-old Hoosier drove the first milk wagon from a small one-story station, making his first stop with a quart of milk at the home of Benjamin Harrison, former president. He was Samuel O. Dungan, president of the Polk Sanitary Milk Company, which lately celebrated its Golden Anniversary in business.

"I delivered 27 gallons of milk on that first trip," he recalled. "And last Saturday we handled 27,000 gallons."

During those early years, Mr. Dungan not only delivered milk himself, but did his own bookkeeping—not so complicated as now. At a dinner given in celebration of the birthday one of the honor guests was Charles L. Peggs, who entered the company's service 47 years ago. Altogether 50 employes have been with the company 20 or more years and were special guests at the annual banquet, whose chief guest of honor was Mr. Dungan.

The company aided in developing the first milk bottle washer and was the first in Indianapolis to equip its horse-drawn wagons with rubber tires to eliminate early morning noises.

ASKS PRICE INCREASE

Indianapolis Dairymen's Group Seeks Rise in Milk Rate

Indianapolis, Ind. (EB)—Carl L. Hedges, manager of the Indianapolis Dairymen's Association, has announced that he has asked the OPA to grant an increase of 10 per cent in the price of milk paid to producers in this area, effective before August 15.

Dairy representatives estimated that such an increase over the present ceiling price of $3.51 for 100 pounds of Class I milk would raise the retail price 1c a quart.

Hedges said the proposed increase was necessary if "Indianapolis is to avoid a milk shortage that would be a near catastrophe." The increases, he explained, would help to meet higher costs and serve as an incentive to increased production.

C. Winfield Hunt, executive secretary of the Milk Foundation of Indianapolis, representing the distributors, said he did not see "how sufficient milk production in the local area can be maintained unless a considerable increase in price is granted to producers."

The request to OPA followed a meeting of officials of the dairymen's association with the Independent Milk Porducers' Association and the Indianapolis Dairy Producers' Council, which represent approximately 5,000 milk producers in the local milk shed.

McMahon's Dairy in Altoona Builds Quality Reputation

Milk Processing Methods Responsible for Vitamin D — Homogenized Sales Amounting to 20 Per Cent of Total

(By a Review Staff Representative)

McMAHON'S DAIRY, located on the outskirts of Altoona, Pa., in its ownership and operation is strictly a family affair and through the years has made steady and consistent progress in respect both to quality and volume. The widow of the founder, her three sons and two daughters fill the key positions in the organization; Miles B. McMahon serves as president and plant superintendent; Harry E. and Montrose, two other sons, are vice-presidents and serve as route foremen; the mother, Mrs. Margaret A., is treasurer of the firm; and two daughters, Mrs. Olive Young and Blanche McMahon, constitute the office force. Thus it is seen the officers of the firm are all actively engaged in the business.

A recent visit at the plant with Miles McMahon reveals some interesting sidelights on the company's operations. It might first be said that the plant is located just outside of the city proper, away from all dust, smoke or other urban airborne contamination. Due to the interior construction and department arrangement, it is an easy matter to maintain utmost cleanliness in the plant, which no doubt is one of the factors making for the high quality of McMahon's milk.

Floors are of red tile, with suitable drainage to prevent any wet accumulations on the floors; tile walls separate the different departments; adequate space is provided between the different pieces of equipment as an aid in cleaning up; and ample natural light is supplied through the many windows.

The McMahons are equally particular about the quality of their raw milk as they are about the sanitation of the plant. By presistent cooperation with their patrons, the latter now are all equipped with mechanical milk coolers. While the dairy insists that the raw milk be delivered to the plant with a temperature not higher than 60 degrees F., it is actually received much cooler than that. During the month of June the temperature of the incoming milk averaged close to 50 degrees.

The dairy also cooperates with its producers in the matter of maintaining low temperatures. Every truck that brings milk in from the farms is equipped with an insulated body, thus preventing the direct rays of the sun from hitting the cans and also aiding in the prevention of dust contamination. This milk cooling program unquestionably is also partially responsible for the low bacteria counts in the bottled product,—counts that range from 800 to 2,000 per c.c. by State laboratory tests.

Efficiently Equipped Plant of McMahon's Dairy, Inc.

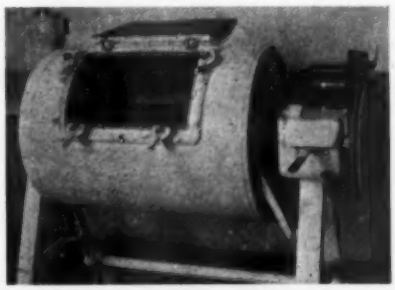
When Miles McMahon was asked if any trouble was experienced with their Vitamin D—homogenized milk during the hot weather, he stated that ever since they had been bottling that product they had never had the least difficulty. He said that they had been using constantly Vitamin D concentrate (A. R. P. I. process) put up by the General Mills organization.

He expressed the view that most likely the method by which their Vitamin D—homogenized milk was processed accounted for such full satisfaction. Briefly, the procedure is as follows: As soon as the cold raw milk is dumped it is clarified in a DeLaval air-tight clarifier. It is next preheated to 140 deg. F. and then passes through the homogenizer with a pressure of 2,500 lbs. After homogenizing, the milk is pasteurized by the batch system at 145 deg. in stainless steel spray vats. In the usual manner the milk is then cooled and bottled.

This processing procedure, together with the farm cooling, protection in transportation and the absolute plant cleanliness form a combination of factors that may well be directly responsible for the high quality of McMahon's milk and the avoidance of any summertime troubles.

Miles McMahon related that the sale of their Vitamin D—homogenized product had increased steadily during the past two years, until it now comprises about 20 per cent of their total volume, and its sale continues to increase.

When Miles McMahon was asked how the growing manpower shortage was affecting their operations he replied that, so far they had experienced very little difficulty in that direction due to the fact that most of the employees are either older men who had worked for the firm for many years or were men with families. The McMahon brothers, themselves actively engaged in all operations, have the ability to fill in at any job whenever an employee is absent. While many firms have lost men to war industries the employees in McMahon's Dairy have shown reluctance to leave their established employment merely for the sake of higher wages.



Small Combined 50-100 Gallon Churn and Worker For Making Surplus Cream Into Butter

The Powerful Force of Radio and

To Bring Your

That's about al... forget about those bottles – milk ...beer – that you should take ba... caps back on th... caps.

I'm talking about the milk bottles, beer bottles, soft-drink and other beverage bottles that you may have in that spare closet and down in the cellar. And those metal caps that came on those bottles.

Just want to add a word about bottles, though — I mean the deposit return bottles for soft drinks, beer and milk that you may not have bothered to take back to your grocer or wherever you got 'em.

Today I'm going to tell you to dig out those milk bottles, beer bottles, and soft-drink bottles and get them back to your dealers. And snap the cap back on 'em.

Almost didn't mention bottles today. Soft-drink, beer, milk bottles. No good to you sitting in the closet. Get them back to your dealer.

There's help—real help—for dairymen in the radio statements on this page, reproduced from actual Owens-Illinois radio scripts.

These and many more have been broadcast over the entire Columbia Network—118 stations with a potential audience of 31,000,000 radio families.

Free Write to Owens-Illinois, Merchandising Division, Toledo, for advertising and merchandising materials which dairymen and other returnable bottle users have employed in addition to the Owens-Illinois efforts. The effectiveness of these campaigns has been proved.

OWENS-ILLINOIS

GLASS COMPANY TOLEDO, OHIO

Newspaper Publicity is Enlisted

Bottles Back *Promptly*

Owens-Illinois wants to do everything possible to assure you the absolute maximum trippage of which glass milk bottles are capable. So, through the medium of its radio program and through nation-wide publicity we are calling upon Mrs. Consumer to return every bottle promptly.

Why should we consider this important when production is assured for every glass milk bottle needed? And when, even without extra service, glass milk bottles are tops in economy and conservation?

—Because, selfishly, we know that the better the bottle, the more trips it can make. The quality of Duraglas bottles is more than ever apparent as they withstand usage "above and beyond the call of duty."

More important, extra trippage means still lower packaging costs for dairies, plus savings to America's wartime economy in manpower, materials and transportation.

This is why we have asked and will continue to ask Mrs. America to put all milk bottles back into service.

Bottle-Salvage Drive to Be Launched Monday
Bottle Return Drive Begun
Prompt Return Of Bottles Urged
DEPOSIT-BOTTLE CAMPAIGN IS ON
HELPING ROUND UP BOTTLES
Empty Bottles To Be Collected
Bottles To Be Collected May 24
Bottle Hunt On in State
Bottle Drive Begins Well
Help the Bottle Blitz

DEVELOPERS OF Duraglas DAIRY CONTAINERS

Increased Production Per Cow Aids This Producer-Distributor

Team-work of Leighty Pure Milk Company Owners in Connellsville, Pa., Insures Quality and Quantity Safeguards

(By a Review Staff Representative)

Leighty Pure Milk Company Plant

WHILE not pretentious or large scale in its operations, the Leighty Pure Milk Company, a producer-distributor firm in Connellsville, Pa., has some unique and outstanding features in its functioning. It is not a one-man proposition but on the other hand is owned by three brothers, each of whom operates a dairy farm, and one other member, Mrs. Lillie White, who also conducts a dairy farm.

Tom. C. Leighty

The four partners comprise the entire ownership and total source of milk supply for their distributing business. So well does each partner-owner gear his or her herd production to the plant requirements that seasonal surpluses are never experienced. A definite amount of raw milk is delivered every day from each of the four farms which balances almost to the quart with the amount required for the two motorized retail and wholesale routes.

This business was really started by the Leighty brothers' father, who converted his farm from raising of beef cattle to dairy cows and the selling of raw milk. Pasteurization was adopted in 1934. In 1935 Tom C. Leighty, after working in a Pittsburgh milk plant following his graduation from Pennsylvania State College, returned to Connellsville to take over the management of the plant and milk distributing business, a task he still undertakes. Shortly thereafter he also bought a dairy farm, which he continues to operate. The other brothers, Albert and Byron, confine their time entirely to their dairy farms.

Examples of Efficiency

The dairy farm management operations of the Leighty brothers' farms are examples of efficiency. That of Albert Leighty is typical. In 1935 he decided upon a herd and pasture improvement program. At that time the average production of milk per grade cow was just about 4,500 pounds. Today, the production per cow averages just about 10,000 pounds. Albert's natural ability to know each one of his cows, it might be said personally, a definite breeding and calf-raising program and a systematic procedure for improving the soil for pasture, briefly sum up the reasons for such an outstanding increase in milk production.

Sleek, High Producing Cows and Luxuriant Pastures Now Abound Near Connellsville, Pa., Where Coal Was Once Mined

Breeding from bulls of known high producing strains aided materially in increasing the milk yield. For several years the grade Holstein cows have been bred by a high production bull of the Guernsey breed. Today the herd contains "black and whites" and others with varying percentages of Guernsey blood. The milk produced by these animals averages 3.6 to 3.7 per cent—a reasonable average which precludes the necessity for any standardizing in the plant before bottling.

The old axiom, "If you would get the maximum milk production from a cow treat her as you would a lady," is an unwritten law on any of the Leighty farms. And the cows in Albert Leighty's farm show that they respond to such kind treatment.

An interesting incident illustrates the friendliness of his cows. The writer was one of a group who were out in the pasture examining the luxuriant clover and grass that supplied ample evidence of his soil improvement program. The herd had been "turned loose" from the barn,, and were roaming at will to one of the pastures. Viewing the four men on the hill, their curiosity was aroused and they came to join the party. They all "muzzled around" in a most friendly manner, receiving a kindly pat here and there from the visitors. Sleek coated, contented and of gentle disposition, these bovines pay excellent dividends in the milk pail for their keep and the attention that is given to them.

The most promising heifer calves are raised for future herd replacements, thus making it unnecessary to buy any animals from the outside. This policy no doubt is responsible for the excellent health of the herd. In speaking about this feature, Albert Leighty stated that he has never had a cow condemned on account of tuberculosis or Bang's disease.

Utmost cleanliness prevails in the Leighty barns, and the milk is given the greatest care. As soon as the cows are milked by milking machines, it is promptly cooled before delivery to the plant. Even in the hottest weather it is not uncommon for Leighty's bottled milk to have bacterial counts as low as 7,000 to 8,000 bacteria per c.c.

In view of the already critical feed situation that promises to be worse in the near future, Albert Leighty's pasture and feeding program may be of interest. As mentioned previously he has established a definite policy in respect to soil improvement. Years ago, coal was mined from underneath this area, which in itself does not make for the best farming land. Now, however, sinking has stopped and the soil improvement work has resulted in more pasture than the Leighty cows can consume.

Each year Albert Leighty treats a certain number of acres, so that every other year the same field gets a treatment. He uses two tons of lime and 500 pounds of super phosphate per

Byron (left) and Tom. Leighty

acre. He strongly advises that at least these amounts be used, as he is convinced that when less is applied it is false economy. The lush condition of his pastures even in mid-summer furnished conclusive proof that his methods are successful. In addition to the excellent pastures, all other grain feeds are produced on their own farms, thus making it unnecessary to buy any commercial cow feeds.

The plant of the Leighty Pure Milk Company, while small, is fully equipped and adequate for the two-route business. As soon as the milk is brought in from the nearby farms it is pasteurized, cooled and bottled. The procurement of new customers has not been a problem for this producer-distributor business. Speaking of this feature, Tom Leighty, who operates the plant and distributing phases of the business, stated that the quality of their milk is so well-recognized in Connellsville that new customers can be added just as fast as more milk is produced on their own farms.

Tom Leighty has a wide acquaintance among the people in Connellsville and maintains close personal contact with many of them, whether or not they are regular customers. He told of a recent experience when he went out with one of his men on the route and added twenty-five new selected customers in one day. He said "There was no trick to it,—the ground work had been laid months previously and it was merely a question of when we could take them on."

Are you having Priority Problems? Equipment Getting Old?

Milk Pails

14 qt. and 16 qt. durable metal, dairy tinned milk pails. Heavy wire handles. Carefully made.

An exceptional opportunity to get a quality product while our stock lasts. Better write today for prices and full information.

Better take care of the equipment you have and make it last. Make periodic check-ups of the performance of your equipment. Have the necessary repairs made while they are still small and cost little.

Often your worn equipment can be rebuilt to function like new for a fraction of the cost. We specialize in equipment maintenance and can tell you quickly.

For larger jobs we prepare complete plans, specifications, and estimates to fit your particular requirements. We are helping lots of folks with their equipment problems these days. Let us help you.

Call an ILLINOIS ENGINEER and get the benefit of his experience. He can give you valuable suggestions on your priority problems and save you needless expense. Without obligation, of course.

WRITE — WIRE — PHONE

ILLINOIS RANGE COMPANY

ENGINEERS and MANUFACTURERS

800 S. Ada Street
CHICAGO

Subsidies Opposed and Roll-Back Clarification Requested

Strong Resolutions Adopted at War Problems Conference of Indiana Manufacturers of Dairy Products Association—Hadley Changes Post

(By Earl Bullock)

INDIANAPOLIS, Ind.—A resolution declaring the dairy industry of the state as being "unalterably" opposed to the use of subsidies as a means of controlling commodity prices, was adopted unanimously at the closing session of the war problems conference of the Indiana Manufacturers of Dairy Products Association held here June 17.

A second resolution demanded that so long as the subsidy program for butter is in effect, subsidy payments be made on a weekly instead of a monthly basis as specified in regulations issued by the Defense Supplies Corporation of the Federal government.

The resolution attacking the subsidy price control program is as follows:

Whereas, The dairy industry of Indiana is being called upon to produce increased amounts of dairy products and

Whereas, There are many government orders, directives and interpretations as well as a multitude of other problems including shortages of man power, consuming extra efforts of the dairy industry, and

Whereas, Various reliable economic reports show that wage earnings of the workers of the United States are far above normal wage earnings, and

Whereas, The Office of Price Administration, under pressure, has rolled back the price of butter by the use of a subsidy program, which is to be administered by the Defense Supplies Corporation, a subsidiary of the Reconstruction Finance Corporation, and

Whereas, Subsidies are only a means of deferred payment by consumers, who also are taxpayers, and

Whereas, The distribution of a subsidy will require the use of additional thousands of employes and add additional, burdensome expenses to the dairy industry operations in attempting to carry out a program of questionable economic value, therefore, be it

Resolved, That the dairy industry of Indiana meeting in a war problems conference in Indianapolis, unalterably opposes the use of subsidies as a means of controlling commodity prices.

Closer Industry Cooperation Asked

The resolution on the butter "roll back" order set out that a "a careful study of this regulation develops that it contains many ambiguous clauses and that it may be construed to mean many things, which construction, if put into effect, may cause serious harm to the butter industry."

The resolution asked that representatives of the DFC "confer with the butter industry for the purpose of making necessary amendments to said resolution in order to remove therefrom the sections that are objectionable to the industry."

The resolution demanded that a "concrete definition" be given to the term "benefits" as used in the order and that a sub-section which gives the DSC the right to declare invalid in whole or in part any application for payment not in accordance with the regulation, or any claim on account of butter manufactured or distributed in violation of any regulation of the War Food Administration or the OPA "be eliminated in its entirety."

'Wartime Price Changes In America, England and Other Countries Under Price Control" was discussed by Dr. T. K. Cowden of Purdue University. He disclosed that despite rigid price control legislation, commodity prices have skyrocketed to the highest level in England, with the United States and Canada second. Germany is the only country, the speaker said, where prices have been controlled.

A panel discussion on prices and interpretations of orders affecting the dairy industry in Indiana was led by OPA regional and state officials. At a luncheon meeting the last day, three soldiers who are patients in Billings General Hospital at Fort Benjamin Harrison here, related their experiences on battle fronts.

Hadley Joins Ice Cream Association

The resignation of C. C. Hadley of Indianapolis as executive secretary of the association was announced. Frank C. Wilson, formerly of Indianapodis, was named to succeed Mr. Hadley. He assumed his new duties at once.

Mr. Hadley resigned to accept a position as assistant to the executive secretary of the International Association of Ice Cream Manufacturers in Washington. He had been with the Indiana association two years.

Mr. Wilson has been associated for the last ten years in an executive capacity with the Carnation Milk Co. He formerly was employed by the Indiana state food and drug department. He is a graduate of Kansas State University and received his master's degree in dairy management from the University of Wisconsin.

Principal speakers at the first day's session were Wallace P. Studencke, chief of the Bureau of Labor Utilization of the War Manpower Commission in region 6; Reuben Kaminsky, state director of the War Labor Board; Capt. S. S. Springer, state occupational adviser for state selective service headquarters; George Burnett, state director of the farm vehicle section of ODT, and Prof. H. W. Gregory of the dairy department of Purdue University.

Representatives of the newly created War Food Administration were principal speakers at a dinner the first night. They interpreted food distribution orders, rollback and subsidy programs. The speakers were: Frank E. Blood, deputy regional administrator, FDA, Chicago; A. L. Ronneberg, general director DPMA, Chicago, and Wade E. Ellis, compliance division, FDA, Chicago.

Mr. Studencke declared that plans have been formulated by the War Manpower Commission to employ approximately 2,500,000 more women in essential industries before the end of this year and that about 3,500,000 men now in work classed as non-essential, must be induced to transfer to essential industries this year.

HOMOGENIZATION CLAIMS

Recent inquiry reveals that the Federal Trade Commission has held no formal or informal proceedings with respect to claims about the digestibility of homogenized evaporated milk.

The American Medical Association allows a claim of improved digestibility for homogenized bottled milk because homogenization lowers the curd tension.

Literature issued by the Evaporated Milk Association for physicians mentions that the homogenization process has the effect of maintaining uniform distribution of butterfat and reduction of the size of the butterfat globules which, as a result, hastens the digestive process.

NEW PET DRIED MILK PLANT

Late last month the Pet Milk Company opened its new milk dehydrating plant in Sparta, Wis. It is reported that 90 per cent of the output will go into Government channels. The new unit is an addition to the company's regular spray process powdered milk plant in Sparta.

MILK OFFICES MOVED

The offices of Dr. C. J. Blanford, administrator of the New York metropolitan milk marketing area, have been moved from 383 Madison Avenue to 205 East Forty-second Street in New York City.

NEW O-I RADIO SHOW

Owens-Illinois Pushes Wartime Home Information in Network Program

Limiting commercials to mere announcements of the sponsor's name, the Owens-Illinois Glass Company through its new radio show, "Your Home-Front Reporter," has set up a partnership with the U. S. Government in forwarding the war effort.

W. E. Levis, center, Chairman of the Board of Directors of the Owens-Illinois Glass Company, discusses scripts and musical numbers with the cast of his firm's "Home-Front Reporter" radio show. The group, left to right, includes: Fletcher Wiley, commentator; Eleanor Steber of the Metropolitan Opera, soprano; Mr. Levis; David Broekman, conductor; and Frank Parker, tener.

Current answers to household problems, furnished in cooperation with the Office of War Information, War Manpower Commission, Office of Price Administration, the Department of Agriculture, and other government agencies provide the theme for the program.

The set-up bears out the statement by W. E. Levis, chairman of the board of directors of Owens-Illinois, made when the program was launched May 10th. "Our problem is not one of sales," he said, "but rather one of service and supply."

In addition to the information service, the program stresses special angles for the sponsor and other manufacturers that tie in with the war effort. For example, full and part time workers in food packing areas are urged to enlist in the important drive for manpower. Consumers at the same time, are urged to return bottles in an effort to meet the necessary limitations placed on the production of containers.

The technique, tested spasmodically on local stations by smaller sponsors, is aimed at creating good will for customers as well as with customers.

Marketing nothing direct to the public outside of jars for the packing of foods in the home, the company consequently is concentrating its good will campaign in behalf of manufacturers whose products are packed in glass or other container materials made by Owens-Illinois

H. M. DICKINSON DIES

Brandon, Vt.—Howard Maurice Dickinson, manager of the West Salisbury milk plant, died here recently. He was 41 years old.

BELLE CENTER CREAMERY SOLD

Announcement was made July 6th, by Alvin G. Brush of the American Home Products Corporation, that negotiations had been completed to acquire the Belle Center Creamery & Cheese Co., a large Ohio producer of cheese, butter and other dairy products and by-products, and its affiliate, the O. M. S. Corporation, an important producer of milk sugar .

All of the outstanding stock of the two Ohio companies is being acquired by American Home Products Corporation through the issuance of 6,000 shares of the latter's stock. Walter L. Lamb and his family formerly controlled the stock of the Belle Center concern, it is reported. Mr. Lamb, who founded the two Ohio corporations, will continue as president and general manager ot the companies.

The Belle Center Creamery & Cheese Co. was established in 1934 and has enjoyed substantial and rapid growth. The O. M. S. Corporation was founded in 1940 to manufacture milk sugar from whey which it has been selling to the S. M. A. Corporation of Cleveland, a subsidiary of American Home Products Corporation.

NEW DAIRY PRODUCTS PLANT

Cleveland, Ohio.—Jersey Dairy Products Co. has been incorporated by John B. Oviatt, Elmer J. Warrick and B. E. Vokoun.

SPRAY PROCESS DRYERS

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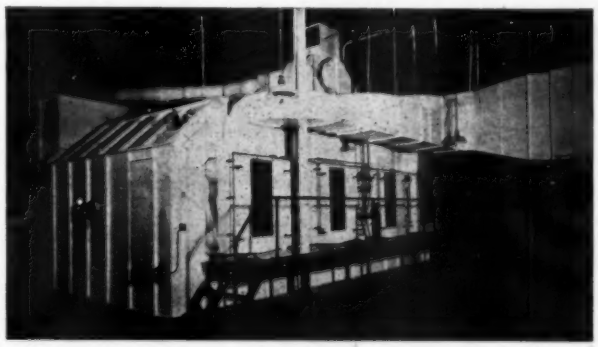

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Bacterial Content of Dry Milk

Various Factors and Proper Manipulation in Dehydrating Process Which May Influence Counts at Different Stages in the Production Line—Part 2

(By P. S. Prickett, Chief Bacteriologist, Mead-Johnson & Co., Evansville, Ind.)

★*The* REVIEW *is pleased to present herewith the final installment of a timely and interesting paper delivered by Mr. Prickett, Chief Bacteriologist of the Mead-Johnson organization's Bacteriological Laboratory, at the Dry Milk Manufacturers' Short Course held at the University of Minnesota, March 2nd and 3rd. In the first section of his paper, given in our May issue, Mr. Prickett discussed the "Effect of Processing" and its relation to the bacterial content in the finished product. The present section is devoted to a discussion of "Meeting Standards."*

Dry milk processing procedures based upon the fundamentals outlined by Mr. Prickett no doubt will enable operators more uniformly to manufacture a product which will be acceptable to governmental purchasing agencies without question as to its bacterial content. Under the existing tremendously expanded production program on dry milk, the accompanying article and its initial installment presented in last month's issue should prove a particularly valuable contribution to the industry's progress.

Part II—Meeting Standards

BEFORE proceeding let us see briefly what standards we are trying to meet. The most recent information at my disposal is from the American Dry Milk Institute. The bacterial standards given are:

Extra Grade	15,000 per cc.
Standard Grade	50,000 " "
Third Grade	100,000 " "

These are bacterial plate counts of bacteria that develop at 98.6 deg. F. or body temperature and the counts are on the reconstituted basis.

How can be meet these bacteriological standards? To answer this I would like to quote something from a previous publication. "What are steps by which a manufacturer can produce foods of a high sanitary quality? They are in reality very few and very simple—start with clean raw materials; keep them clean during the manufacturing processes; pack the finished product cleanly and in suitable containers. It is the practical application of these simple rules that is frequently difficult". And, may I add, the dried milk plant is no exception.

To start at the beginning, let us consider our raw product—milk. Just because we are operating a milk drying plant, the product of which will not support bacterial growth because it is dry instead of being in a bottle, is no reason for us to be willing to accept raw milk that has high bacterial counts. Suppose the steps in our process do result finally in the death of the bacteria so that our dry product has a low bacterial count, what about all those dead bacterial cells and those products of bacterial metabolism that remain in the dried milk? What of the people that consume our dried milk, our fighting allies, our own soldiers on the battlefronts, our own sailors on our warships, our own people, our own babies here at home?

Eastern Health Department Investigation

To show that these are not merely hypothetical questions, let us examine the results of an outstanding investigation made by the health department of a large Eastern city.

The problem in this city was to find the cause of the unusually high morbidity and mortality rates among its infant population. Medical findings showed that gastro-intestinal troubles were causing the illness and deaths and that apparently milk was the cause. The city's milk ordinance required the pasteurized, bottled milk to have a bacterial count of less than 30,000 per cc. and according to the chart you can see that it met the standard. But look at the top half of the chart which shows the pre-pasteurized bacterial counts. Note how the peaks of the curve showing the infantile mortality rate from dysentery and gastro-enteritis. Other studies, which we lack the time to cite here, confirm the fact, that pathogenic or disease-producing bacteria do not have to be present in the milk to cause gastro-enteritis. Merely the growth of large numbers of the usual kinds of bacteria commonly present in milk will cause a bowel upset especially in infants. Heating will kill the bacteria but it does not necessarily destroy the harmful products the bacteria excrete into the milk.

How then can we determine the bacterial or sanitary quality of the raw milk we receive at our drying plants? Several methods are available, the most useful being the bacterial plate count, the Breed or microscopic count and the methylene blue reduction test.

The bacterial plate count method reveals much about the numbers of living bacteria present in the milk and it enables the bacterial flora of the milk to be studied, if that is desirable. However at least 48 hours are required to obtain results by this method and it is also the most expensive one of the three since it requires more equipment and a more skilled laboratory personnel.

The Breed or microscopic count is a comparatively simple method; it is the most rapid of the three methods, requiring only a few minutes and it is less expensive. With

it all of the bacteria in the milk can be enumerated but it does not distinguish between the living and the dead bacteria. It also offers a means of keeping permanent records, accomplished by saving the slides, and it provides a fairly accurate history of the milk to the examiner.

The methylene blue reduction test is based on the ability of bacteria to reduce or decolorize a dye solution, the larger number of bacteria the quicker the dye is decolorized. This method is fairly rapid, requiring only a few hours to yield results. It is the least expensive of the three and can be done with the least skilled personnel.

Combination Examinations Effective

Where no previous work has been done to improve the quality of the supply, probably the Breed count is the method of choice for it shows not only the total numbers of bacteria present but also the types, and from the types of bacteria a trained laboratory worker can predict rather accurately whether a high count is due to garget, to lack of cooling or to dirty utensils. Another method that has much to recommend it is a combination of two of the tests. In this combination samples from every producer are tested by the methylene blue reduction, then the samples that decolorize within a given time are examined by the Breed method to find out why they decolorized so quickly. In other words, the first test is used as a coarse sieve through which the samples are sifted to screen out the good ones and hold back the bad ones for additional checking.

You will recall that the next step in meeting the standards, after starting with clean raw materials, is to keep the material clean during the manufacturing process. The cleanliness referred to here is bacteriological cleanliness. It means keeping the product clean throughout the manufacturing procedure instead of cleaning up the product, bacteriologically, at the last step. An eminent milk sanitarian expressed it very aptly when he posed this question, "Which would you rather drink, a glass of *clean* milk, or a glass of *cleaned* milk?"

Keeping the product clean during manufacture depends on many factors. This morning we discussed the effect of the various steps in the process and saw some of the ways in which bacterial growth can be controlled in each step. That is an important part, but it is not the whole story. Another equally important phase is the condition of the equipment, both its mechanical and its sanitary condition. Let us consider the latter for a bit. We had better start with the farmers' milk cans for their state of cleanliness and repair has a definite influence on the quality of the milk they contain. This of course brings us to the can washer. Is the one in your plant getting the cans clean, I mean, really clean? Is it allowing a film of milk stone to build up in them, a film in which bacteria delight to hide and grow?

Next we can consider the rest of the equipment, not only the tanks, hot wells and vacuum pans, but also the pumps and the pipe lines. These all require cleaning and we tear them down so we can do a good washing job. Of course all of us are certain of the sanitary quality of the water we use in washing and cleaning our equipment, but I would like to tell you about one operator that was mistaken. Some years ago when this country was importing

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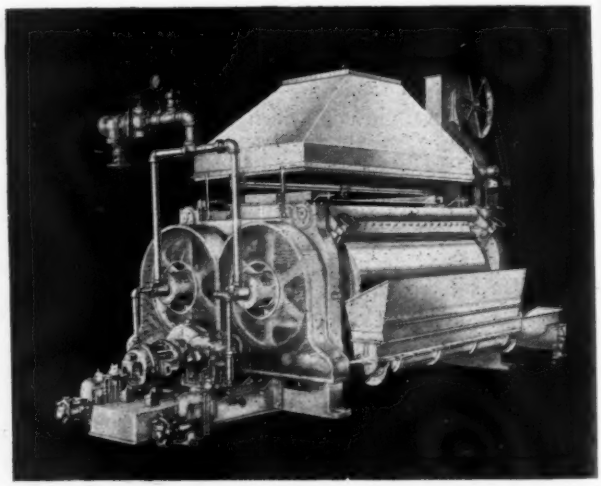
considerable quantities of milk and cream from Canada, the U. S. Department of Agriculture established a laboratory on the Canadian border to inspect the imported milk and cream. As part of the program we inspected the Canadian plants shipping into this country and one of the things we watched closely was the plants' water supplies, for many of these plants were small and located out in the country. Nearly all of them had a safe and satisfactory water supply, but one of them did not.

This plant had a good well, but its flow was not equal to the entire day's needs. This plant was located a few miles outside a village and on the same small, swiftly flowing river that served the village, but the plant was downstream from the village. Every day the well was just about pumped dry by the time water was needed for washing the equipment and cleaning the plant. When this occurred the engineer stopped the well pump and started another one that pumped raw water from the river directly into plant's water lines. You can easily surmise the sanitary condition of the raw river water only a few miles downstream from the village's sewer outlet, but apparently the plant operator had not. For it had never occurred to him,



Typical Drum Drier for Roller Process Dried Milk

he said, to install a water tank and fill it with his excellent well water during the night so he would have an adequate supply of safe water all day long. This unusual and rather spectacular incident serves to illustrate what sometimes can happen when a fellow gets careless or fails to realize some of the pitfalls.

Sterilize Equipment Before Use

It is sound sanitary practice to sterilize the equipment after it is re-assembled to kill the bacteria that remain in the equipment after it has been washed or those that have been introduced into it by the handling necessary in re-assembling it. In many plants it is the practice to assemble the equipment the last thing in the day to be ready for the next morning's milk. During the night the bacteria have plenty of time to grow in the equipment for the interior of the equipment is wet, the temperature is favorable and enough milk solids remain to supply them with food.

If it is impossible or impractical to sterilize the equipment immediately after it is re-assembled with steam or

hypochlorite solution, we can at least flush the assembled equipment out with very hot water the first thing in the morning before the milk goes through it. By this step we can assure ourselves that we start the day with our equipment in a clean and sanitary condition. If we also have clean raw milk to put through our clean and sanitary equipment we will have taken real steps towards meeting our standards.

There is another point about the equipment we should consider and that is the importance of eliminating dead ends and "pockets". You have noticed how driftwood, leaves and debris collect in the eddies near the banks of a stream, and are not swept further on down-stream; much the same thing can happen bacteriologically in milk plant equipment. If there is a dead end or "pocket" in the equipment bacteria lodge and collect there instead of being swept along. Here they can stay and grow, then, like the log escaping from the eddy and floating on downstream, some of the bacteria escape from the pocket and contaminate the milk stream. Some places in our sanitary pipe lines we use tees or crosses where an ell would serve just as well, or a valve is installed a foot or two farther along the line in a cross connection than it should be, or the outlet on a tank is not in the proper place to allow complete drainage, or the outlet valve on a tank is improperly placed —these are the sort of things that produce "pockets" and dead ends.

The pumps also need to be considered. Probably all of us know how to clean and take care of the things about a pump, but sometimes the trouble is not obvious. I recall one plant that was having trouble controlling the bacterial content of the milk in a vacuum drum dryer. Studies by the laboratory had established that the evaporated and pasteurized milk being delivered to the dryer had a very low bacterial count but that the count of the milk in the dryer increased rather rapidly as drying continued. The milk circulating pump on this dryer was implicated by the laboratory's findings, for it was found that the packing of the pump was inoculating the milk with bacteria which were then growing in the milk. The pump itself was successfully sterilized along with the dryer and the connecting pipe lines by steam, but the packing was not. It was found necessary, to control this particular situation, to remove the pump packing daily and sterilize it separately before re-assembling the pump. The packing was easily sterilized after it was removed from the pump by heating it under steam pressure in the laboratory autoclave.

On this same vacuum drum dryer the laboratory also found it advantageous to operate it with the dust collector dry instead of carrying water in it, for this served to very materially minimize the danger of contamination caused by a vacuum surge or "suck back".

Value of Laboratory

As you have probably gathered from various references in our discussions, the laboratory's usefulness does not end on the receiving platform. Samples should be taken throughout processing, otherwise how can you know where and how control measures need be applied during processing to keep your product clean during its manufacture so that your finished product will meet the standards.

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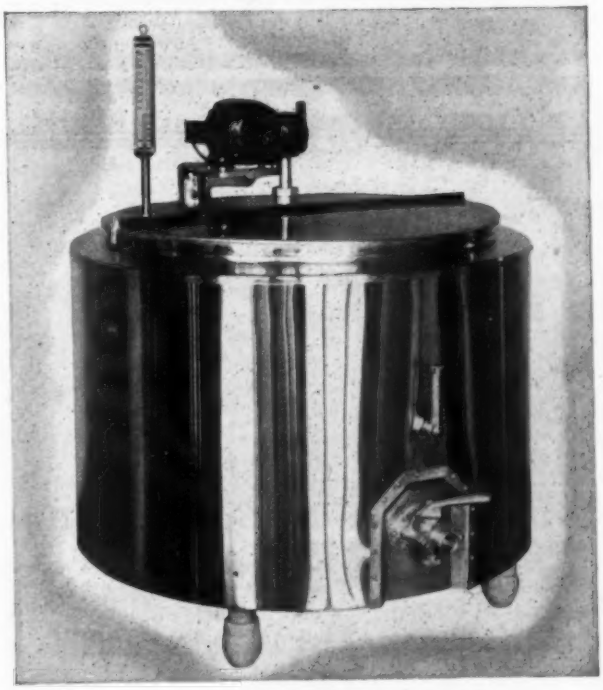

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Source of Thermophilic Counts

For example, I recall one large milk dealer in another state who was having serious trouble with thermophiles in his finished product. His laboratory found that trouble started in the batch pasteurizers. The first few batches through were low in count, but after the third batch the thermophilic counts started to increase and kept on increasing until the end of the day's run. They discovered that small numbers of thermophiles were being brought into the pasteurizer vats. When the vats were emptied most of the thermophiles of course went out with the milk, but the film of milk and foam left on the pasteurizer's walls served to seed the next batch of milk with rapidly growing thermophilic bacteria. Thus each incoming batch was seeded or inoculated more heavily than the preceding one and the bacterial counts of the pasteurized milk went higher and higher the longer the pasteurizers were operated. The laboratory discovered the key to their problem was the film of milk and foam left in the pasteurizer vats and that by merely flushing the vats out with hot water between batches the problem was solved and the thermophilic growth controlled.

Coming now to the finished product, one of the requirements in meeting the standards for dry milk is the bacterial count. By definition, the American Dry Milk Institute's standards says the bacterial count shall be based on the bacterial plate count of plates incubated 48 hours at 37 deg. C., or body temperature, and that the results are to be expressed as the number of bacteria per cc. of the reconstituted solution.

The bacterial count determined in this manner is very valuable and is helping as far as it goes, but in my opinion it does not go far enough because the information it reveals is too limited. This determination, for example, most likely would not reveal the presence of molds in the product, which, as we noted in this morning's discussion, will probably be present if the air filter on the spray dryer is not functioning properly or if contamination occurred in packing. To obtain a mold count it is only necessary to pour another set of plates and use a medium on which molds will grow well and then incubate the plates at room temperature for four days.

As another example, it is a question whether plates incubated at the required temperature of 37 deg. C. (98.6 deg. F.) will reveal the presence of thermophilic bacteria in the dried milk. If the thermophilic bacteria present are obligately thermophilic, i.e., if they will grow only at temperatures above 112-115 deg. F., then they will not develop on the plates incubated at 98.6 F. However, if those present were facultative thermophiles, i.e., if they will grow at 98.6 deg. F. and also at 145 deg. F., then

they will develop on the plates incubated at 98.6 deg. F. and will influence the bacterial plate count as determined by incubation at this temperature. Perhaps the standards have been modified recently to include a thermophilic count but it has not come to my attention. To obtain a thermophilic count a duplicate set of plates is poured using the same plating medium as for the 98.6 deg. F. count, but the plates are incubated at 55 deg. C. (130 deg. F.) for 48 hours.

Perhaps you wonder at the stress laid on the thermophilic bacteria, especially if they may not figure in the final bacterial count. Perhaps you will be more puzzled when you learn that they are considered by many to be harmless from a public health viewpoint inasmuch as they are not disease producers until you recall the findings of that eastern city's board of health showing the relationship between high bacterial counts and the infant mortality rates from gastro-enteritis. But there are more concrete and specific reasons.

The thermophilic bacteria are varied in their activities. Some types produce hydrogen sulfide, the chemical which smells like rotten eggs; some types produce the fat-splitting enzyme, lipase, which hastens the onset of rancidity; other types ferment carbohydrates including milk sugar to produce acids; still other types attack and break down proteins including casein on which they may have a rennet-like or coagulating effect. Do these accomplishments of thermopholic bacteria suggest to you that large numbers of them growing in your milk during its processing may give it off-flavors and odors, or increase its acidity, or reduce the dry milk's keeping quality?

Quality Raw Material Important

If drying does not kill the thermophilic bacteria and they are present in the dried milk other things may happen. For example, a government official was telling me recently about some of the food problems in war workers' cafeterias and in our army camps. It seems that many of these places are using dried milk in their cooking and they have been troubled with some of their soups, gravies and sauces curdling and spoiling when these foods are kept hot over an extended period of time, as would be the case where the food is kept hot on a steam table. Laboratory investigation showed that thermophilic bacteria present in the dried milk was the cause.

Another angle to be considered in meeting standards is the growing practice of food manufacturers to include bacterial standards in their specifications of raw materials. Since the bulk of dried milk is used as a raw material by other food manufacturers this practice is of importance to us. As an example, in recent years the Ward Baking Co. as part of its program to control the bacterial disease of bread called "ropy" bread, included certain standards or maximum tolerances for bacterial "rope" spores in its specifications for dried milk. This baking firm is only doing the very thing we are discussing here this afternoon, namely, securing clean raw materials to start with and then keeping the product clean during the manufacturing process.

There is another problem in meeting the bacterial standards for dried milk that should be discussed and that is the problem of the laboratory in making bacterial

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analyses. Frequently dried milk presents more difficulties to the bacteriologist than fluid milk does; for example, consider the dried milks that are difficultly soluble. Unless he can get all of the dried milk into solution the plates he pours will contain tiny particles of dried milk that are often difficult to distinguish from small or pin point sized bacterial colonies. I am reminded of the time a certain manufacturer was bidding on a Navy contract the specifications of which placed a ceiling on the bacterial count. The sample submitted with the bid was sent by the Navy to a laboratory to be tested. The sample more than met all of the specifications except on one point—its bacterial count. The manufacturer had a laboratory of his own and on the basis of its analyses he was convinced of the quality of his product, consequently he requested the Navy to obtain another laboratory's verdict. This the Navy did and it so happened that the laboratory where I was working at the time was selected to re-check the sample and it fell to my lot to test the sample. To make a long story short, I found that the first laboratory, not being accustomed to analyzing dried milk, confused undissolved milk particles with bacterial colonies and consequently reported a high count whereas the sample actually had a low bacterial count.

To illustrate the very real difficulty the laboratory may encounter with this problem I want to show you the pictures of two plates.

An acid milk powder was chosen purposely to prepare the sterile plate in order to get the proper photographic effect.

We have studied this problem rather intensively and have found that the protein dissolving power of alkaline solutions can be used very effectively in helping to overcome this problem. Of the various alkalis studied we found that lithium hydroxide was the best. The protein dissolving powder of this alkali is well illustrated by the pictures of two plates.

Both of these plates were prepared from the same sample of drum dried skimmilk, a difficultly soluble milk powder. Note the small, undissolved particles of milk protein in the plate poured from the dilution prepared with distilled water and how easily they may be confused with small bacterial colonies. Compare this plate with the one prepared from the same sample but using lithium hydroxide. Note how free this plate is of undissolved particles of milk protein. In counting a plate like this one there is no chance of confusing protein particles with bacterial colonies, thus the bacterial counts determined from plates like this one will be more accurate.

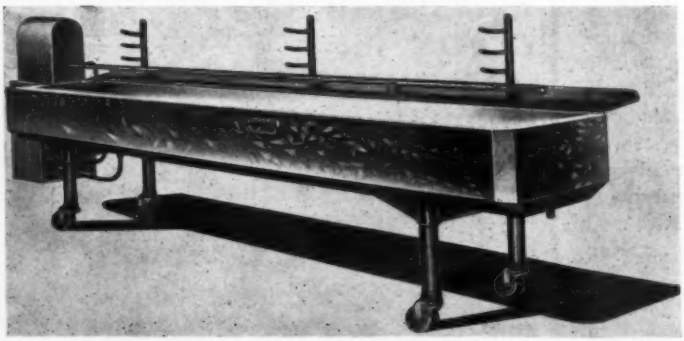
Bacterial Plating Technic

There may be some question concerning the possible germicidal effects of using an alkaline solution in the bacterial plating technic. Studies have also been made on this phase. Representative results obtained by comparative studies are shown in Table 1.

It will be seen that the lithium hydroxide had no germicidal effect on the bacterial population of the milk powders tested, instead it appears to increase the counts. The explanation is that by dissolving all of the milk protein the bacteria' colonies are more readily seen and counted. You will also note that when an alkaline dilution blank is used a direct microscopic or Breed Count can be made of the milk powder. This count reveals the total number of bacterial cells, both living and dead, present in the sample and in conjunction with the plate count, which enumerates only the living cells present. It tells much concerning the past history of the sample.

In addition to the various problems or factors in meeting the standards such as: clean raw milk; clean and sterile equipment; the importance of sampling during processing; the control of bacterial growth and contamination in the different steps in the process; and the problems of the laboratory, there is one more factor, perhaps the most important of them all—the human factor. A trained and intelligently interested personnel is the key factor in any sanitary control or cleanliness measures in any food processing plant—and a milk drying plant is no exception.

Since the human factor is so important, it is here that the milk plant operator must look for either his biggest dividends or biggest losses from his efforts to maintain sanitary control of his products. If we expect our production personnel to employ the rules of cleanliness in their work and to be bacteria-conscious, then their working environment should be so arranged and conducted as to help inspire and maintain this desired attitude. Moreover, thought and effort expended to devise more convenient ways for the operating personnel to perform the various cleaning and sterilizing operations return big dividends in cooperation and results.



Sanitary Pipe Washing Machines

The most efficient way to keep your sanitary piping really clean. A new, improved design of the machine which Girton originated. Tank is of ⅛" boilerplate. Machine has special swivel mounting so shaft can swing vertically and horizontally. Water flows through shaft to brush end.

The tank and machine are available separately. The machine can easily be mounted onto your present tank.

WRITE FOR BULLETIN

GIRTON MFG. CO. Millville, Pa.

It is often comparatively easy to train a man to perform his work in a fairly satisfactory but largely mechanical manner. If his duties are routine his job becomes monotonous and, being human, he may neglect some operation important in bacterial control, even as you or I might do if we were in his shoes. This is the point where an intelligent interest, based on an understanding of the importance of the control measure, is vital. The laboratory man and the superintendent can play a major role in arousing and maintaining this intelligent interest and enthusiasm. The advantages of such contacts are not one-sided by any means. Frequently the laboratory man, who must perforce spend much of his time in the laboratory, and the superintendent can gain valuable information and important clues from the workman who, in reality, is responsible for the success or for the failure of his particular part in the manufacturing process. To state it another way, the laboratory personnel and the production personnel must work hand in glove to produce the desired results.

If this is done, there will be no question of meeting the standards, and what is more important, you will have produced a clean, not a cleaned dry milk.

PENN STATE SHORT COURSES

Pennsylvania State College at State College, Pa., announces that the next three scheduled short dairy courses will be held as follows: Course 1 will run from July 19 through July 24; Course 2 will run from February 14 through February 26; and Course 3 from February 28 through March 11.

The courses will include the testing of milk, cream and dairy products; ice cream making, and discussions on market milk and milk control.

WILSON SUCCEEDS HADLEY

New Indiana Secretary Has Excellent Background for Position

Frank C. Wilson assumed his new responsibility as general secretary of the Indiana Manufacturers of Dairy Products Association July 1. He had been working with the retiring secretary, C. C. Hadley, for the two weeks previously, and this training period, coupled with his present wide knowledge of the industry, made it possible for the association's activities and services to continue without interruption.

Mr. Wilson received his Bachelor of Science Degree in Agriculture from Kansas State College in 1919 and his Master of Science Degree from the University of Wisconsin in 1921. His training in dairy production, manufacturing and bacteriology at these two institutions was enhanced by the work he did as a teacher and as a laboratory assistant.

Following his university work, he came to Indiana in charge of a traveling laboratory, conducting educational surveys of Indiana city milk supplies. Mr. Wilson's organizational work in the Bureau of Dairy Products of the Indiana State Board of Health, was responsible for much of the advancement made by the department during the period 1923-1933.

From 1933 until recently, he was associated with a large national dairy concern, handling the promotion of their product, educational research and arranging and conducting elaborate exhibits before national and regional meetings of trade groups and professional associations.

C. C. Hadley has accepted the position as assistant to the secretary of the International Association of Ice Cream Manufacturers.

ARMY ORDINANCE AWARD

As a testimonial for meritorious production an Army Ordnance Banner was awarded to the Superior Metal Products Company of St. Paul, Minn., July 7th.

You can BUY TRI-CLOVER PUMPS and FITTINGS NOW

If you have the proper priority. The major portion of our manufacturing facilities is now devoted to war production. However, we are endeavoring to maintain a complete stock of Tri-Clover Sanitary Fittings and Pumps—in Trialloy, nickel-plated bronze and stainless steel. Essential buyers with proper priority can get delivery.

How long we can maintain complete stocks, we don't know. Production of war goods comes first, and will *continue* to come first, in our plants.

TRI-CLOVER MACHINE CO.
KENOSHA • WISCONSIN

Harry D. Lathrop Honored

In celebration of Harry Lathrop's 70th birthday, Mrs. Lathrop and forty executives and salesmen of the company gathered at the Ridge Country Club, Chicago, and presented their congratulations and best wishes. To commemorate the occasion Mr. Lathrop was presented with a specially designed set of engraved solid gold cuff links and tie clasp, a facsimile, true to the smallest detail, of his latest achievement, the L-P Conservation Can Washer.

The party was a complete surprise to Mr. Lathrop and it was somewhat difficult for him to express his feelings. He gave complete credit for the growth and success of the company to the organization that had helped him to make this possible and to the fact that the organization has specialized in the development and manufacture of practical labor and money saving equipment.

Since 1914 the Lathrop-Paulson Company has made outstanding contributions to the dairy industry in the manufacture of dairy machinery, particularly its many developments and improvements in milk receiving equipment. Its headquarters are at 2459 West 48th St., Chicago, Ill.

Mr. Lathrop's hobby is horseback riding and this has kept him 70 years young. He enjoys many hours weekly astride his thoroughbred horse yet seldom neglects daily duties at the factory and office. His interest and enthusiasm forecasts many more years of work and accomplishment.

Broadcast to South America

Washington, D. C.—Central and South Americans heard on the evening of June 20 a radio short wave account of the organization and objectives of the Inter-American Committee for the Dairy Industries, beamed to eighteen countries by the U. S. foreign-programs stations WMBI, WBOS, WGEA and WRCA.

The broadcast was from a recording prepared by the Secretary of the Committee, J. B. Vallarino, who is also a member of the staff of the Division of Agricultural Cooperation of the Pan-American Union. It was sponsored by the U. S. government as part of its regular daily sending of information on many matters to Latin America.

The twelve-minute account of the purposes and structure of the Committee referred to the importance of milk production in the economies of the western nations, and to the primary dietary importance of milk and dairy products.

The transcription of Mr. Vallarino's story of the Committee and its aims was incorporated in a "feature-section" of the United States government's information programs which, under a title that has now become familiar in Latin America, "Americanos Todos" (Americans All) is produced by Alberto Barreto, Chief of the Radio Division of the Office of the Coordinator of Inter-American Affairs.

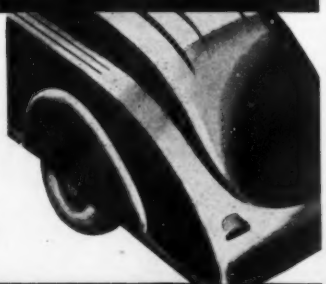
Back On the Route

Many milk dealers these days enjoy a sincere feeling of satisfaction because they had on hand wagons that were formerly discarded or have been able to secure others that were scattered about the country after having been replaced by motorized units. Of course, the reason for putting wagons and horses back on the milk routes have been the restrictive orders by the ODT and OPA in respect to the conservation of transport equipment and domestic gasoline consumption.

Shown herewith is a picture of a Guedelhoefer wagon that has seen many years of milk service in New York State and later to be replaced by a truck. When the swing back to wagons took place during the past year, the Stephens Bros. Dairy in Carbondale, Pa. purchased this durable old wagon, repainted it and put it back into service on one of its routes in Scranton, Pa.

Driver George Halkyer who has worked for the Stephen Bros. is shown with the wagon and his favorite horse, "Buff", as he delivers his daily load of milk and milk products.

Viewing the Future Milk Truck Tank



With the largest, best equipped plant of its type in the N. W., we are planning *now* the *better* milk-truck tank you'll need after the war.

Custom-built, streamlined, and of finest craftsmanship and material, tomorrow's Brown-built truck-tanks will offer *everything* you desire.

BROWN STEEL TANK COMPANY
MINNEAPOLIS, MINNESOTA

Sales Service for Manufacturers of
MILK PRODUCTS
Evaporated Milk—Powdered Skim Milk — Powdered Buttermilk — Condensed Skim and Whole Milk — Powdered Whole Milk.
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156 Franklin St. New York, N. Y.
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Milk Prices Compared

June Producers' Return 14.91 Per Cent Over 1942—Home Delivery Rate Gain Only 4.65 Per Cent

While prices paid to dairy farmers for June milk are 14.91 per cent higher than a year ago, home delivered milk in 25 leading markets is only 4.65 per cent higher than in June 1942, according to a report issued by the Milk Industry Foundation from its Chrysler Building headquarters in New York City.

Latest U. S. Department of Agriculture figures show prices paid to farmers for raw milk for fluid distribution at $3.16 per 100 pounds of milk compared with $2.75 in June 1942. Home delivered milk in June averaged 14.84 cents per quart in the 25 markets compared with 14.18 cents last year.

The 4.65 per cent increase in price of home delivered milk, the Foundations says, shows its low position in the rising price scale of essential foods. The low percentage price rise for milk also shows how the industry has absorbed increased product cost by reducing the operating spread.

Latest U. S. Department of Labor cost of living reports from 56 cities show that all foods increased 17.6 per cent in price between April 14, 1942 and April 20, 1943, while home delivered milk rose only 4 per cent in the same period.

Farm cash income from milk for the first four months of 1943 totalled $844,000,000, an increase of 20.06 per cent over the first four months of 1942. In 1942 farm cash income from milk reached a new high of $2,332,253,000 and was the largest single source of all farm cash income.

CONTROLLERS INSTITUTE ELECTS

Robert P. Alexander, controller of the Pure Milk Association, Chicago, has been elected a director of the Chicago Control of the Controllers Institute of America, according to a late announcement from the organization's New York City headquarters at 1 East 42nd St. Harry L. Camp, general controller of The Borden Company, New York, has been named a vice-president of the New York City Control Institute.

At the annual meeting P. J. Crandall, secretary and controller of the Rieck-McJunkin Dairy Company, has been chosen a director of the Pittsburgh Control, Edward J. Whalen, controller of the Smith-Lee Company, Inc., was re-elected a director of the Syracuse Control, and Paul J. Scott, western regional accountant of The Borden Company, San Francisco, has been elected to membership. The Controllers Institute of America is a technical and professional organization of controllers devoted to improvement of controllership procedure.

ERNEST MULLER APPOINTED

Follansbee Steel Corporation announces the appointment of Ernest Muller as assistant to Mark A. Follansbee, vice-president in charge of sales.

Ernest Muller

Mr. Muller majored in metallurgy at Sheffield Scientific School and was for several years engaged in sales with American Steel and Wire Company, later, in research for U. S. Steel Corporation of Delaware. In his new post, Mr. Muller will devote a major part of his efforts to the company's post-war objectives.

TRANSPORTATION SAVINGS

Indiana Dairy Expert Reports on Study of Three Plans

Indianapolis, Ind. (EB)—The 53rd annual report of the Indiana State Dairy Association, mailed to members recently, includes a discussion of dairy transportation problems by V. C. Manhard of the Purdue University dairy department, in which he refers to a study made in the area around Muncie, Ind.

He outlined three plans studied in an effort to effect a reduction in mileage. "The first consideration," he said, "was the reduction in mileage which could be made by individual companies acting alone through relocation of their routes, yet retaining all producers on the original routes.

"The second consideration was the saving in mileage which could be effected by an exchange of producers between companies and haulers.

"The third consideration involved the allocation of producers to certain haulers whereby all duplications on the pick-up portion of the routes would be eliminated and each hauler would collect the milk of all companies on his route."

Mr. Manhart said the results showed the elimination of 47.2, 97 and 115.9 miles, respectively, in following the three plans.

MICHIGAN ASSN. OFFICERS

At the last meeting of the board of directors of the Michigan Milk Dealers' Association held in Lansing, all officers were re-elected. They are as follows: President, Peter Joppe, of Joppe's Dairy, Grand Rapids; Vice-President, J. Neal Lamoreaux, of Lamoreaux Dairy, Comstock Park; Treasurer, H. C. Hansen, of the Lansing Dairy Co., Lansing; Secretary, James Warner, of Warner Dairy, Ypsilanti, and Executive Secretary, L. N. Francke, of Lansing.

J. Neal Lamoreaux was re-elected delegate-at-large to the Michigan Allied Dairy Association board.

JONES IN MERCHANT MARINE

Art Jones, for the past seven years sales representative of the Menasha Products Company in Washington and Oregon, has resigned his position to enter the U. S. Merchant Marine. For the time being, the company has announced, a successor will not be appointed and the company's business in the northwest will be handled by its branch office in San Francisco under supervision of Hugh Hicks.

SET-ASIDE MILK POWDER

We will handle your set-aside milk powder and buy your free or rejected.

THERE'S NOTHING FOR YOU TO DO, except advise us what you have ready.

We will supply inspection, handle all the details, send you official receipt and pay you promptly.

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Authorized receivers under FDO 51.

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General Board Elects

Dairy Research Group Again Names Dr. Paul F. Sharp of Cornell Chairman for Coming Year

Washington, D. C.—The General Board for Dairy Research, composite industry-science group which seeks to determine the most consequential objectives for research in the many sciences bearing upon milk and dairy products, has re-elected Dr. Paul F. Sharp, agricultural chemist and professor of dairy chemistry, Cornell University, as Chairman for a one year term.

Dr. Sharp is currently on leave from Cornell to organize and direct research in a number of industrial problems. Headquarters of the Board for Dairy Research are in The Albee Building at Washingson.

The General Board comprises nine outstanding dairy scientists, a majority of them holding chairs in United States colleges and universities, and an equal number of members representing the fields of activity symbolized by the following organizations: American Butter Institute, American Dry Milk Institute, Dairy Industries Supply Association, Evaporated Milk Association, International Association of Ice Cream Manufacturers, International Association of Milk Dealers, National Cheese Institute, National Cooperative Milk Producers Federation, and National Dairy Council.

Projects for General Welfare

A recent report concerning the work of the General Board, made by an observer to one of the industry's trade associations, is understood to have said that "there is carefully, methodically but also with practical imagination being transferred to paper from the minds of about a dozen of the world's leading dairy scientists a set of projects which these pioneers in research will present to the dairy industries, the great philanthropic foundations, the great educational institutions, perhaps in part also to the government and perhaps in full or in part to the general public as undertakings which should be assumed for the general welfare."

Roberts Everett, of Dairy Industries Supply Association, was reelected Secretary of the Board.

The current General Board membership, in addition to Dr. Sharp, consists of:

Dr. R. E. Buchanan, Bacteriologist, Dean of the Graduate College and Director of the Experiment Station, Iowa State College.

Loomis Burrell, Dairy Industries Supply Association.

Dr. R. Adams Dutcher, Biochemist, Head of the Department of Agriculture and Biological Chemistry, Pennsylvania State College.

Dr. A. C. Fay, International Association of Milk Dealers.

Dr. H. A. Ruehe, American Butter Institute.

Charles W. Holman, The National Cooperative Milk Producers' Federation.

Milton Hult, National Dairy Council.

Dr. H. C. Jackson, Dairy Industry Specialist, Head of the Dairy Industry Department, University of Wisconsin.

Dr. Arnold H. Johnson, American Dry Milk Institute.

Dr. H. H. Mitchell, Biochemist, Professor and Chief in Animal Nutrition, University of Illinois.

Dr. W. E. Petersen, Dairy Husbandry Specialist, Professor in Dairy Husbandry, University of Minnesota.

Dr. R. J. Ramsey, International Association of Ice Cream Manufacturers.

Dr. H. E. Parfitt, Evaporated Milk Association.

Dr. L. A. Rogers, Bacteriologist, former Chief, Division of Dairy Research Laboratories, Bureau of Dairy Industry, U. S. Department of Ariculture.

Dr. J. M. Sherman, Bacteriologist, Head of Department of Dairy Industry, Cornell University.

Dr. Leland Spencer, Agricultural Economist, Professor of Marketing, Cornell University.

To Confer on Milk

Pennsylvania Dealers' Assn. Sponsors Sessions to Consider How to Meet Production Problems

Harrisburg, Pa. — Program details have been completed by the Pennsylvania Association of Milk Dealers for a conference to be held under its sponsorship on July 20th and 21st to consider means of producing more milk for the war emergency in the face of the existing feed situation.

In announcing the schedule of events Benjamin G. Eynon, Executive Vice-President of the Association, stated that the conference will convene at 9:00 a.m., July 20, at the Stock Judging Pavilion, Pennsylvania State College, State College, Pennsylvania, with Dr. S. W. Fletcher, Dean, School of Agriculture, Pennsylvania State College, presiding. The tentative program has been prepared.

"Milk producer cooperative associations of Pennsylvania and their representatives also will attend," says Mr. Eynon. "Unless milk production can be stepped up, the increased demand for milk may bring rationing on a national basis, so this conference will be beneficial to producers and processors.

"The health and welfare of the nation will be affected by the volume of milk production. Present consumption of milk and milk products is below the minimum recommended by the National Research Council. Further restrictions placed on civilian milk consumption, resulting from shortages in supply, may impair the health of America's children and undermine the strength and stamina of war workers.

"The Pennsylvania State College, Agriculture Extension Service, has developed methods and recommendations which help overcome many of today's handicaps," Mr. Eynon points out. "Details of these studies will be available at the Conference, and should give valuable knowledge with which to overcome this critical situation."

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SOAKER TYPE
BOTTLE WASHERS

Producing clean, sparkling, sterile bottles at extremely low cost for over 1200 satisfied "Sturdy-Bilt" owners from coast to coast. Some sizes available with proper priorities. Write today for delivery dates.

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DRY MILK
For
ICE CREAM MANUFACTURERS
Spray or Roller Process
BUTTERMILK POWDER
WHOLE MILK POWDER
For Human Consumption
Cars or Less
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Dr. Dahlberg to Ithaca

Discontinuance of Dairy Work at Geneva Station Necessitates Change to College of Agriculture

With the announcement that the dairy work at the New York State Agricultural Experiment Station at Geneva, N. Y. would be discontinued came the news also that Dr. A. C. Dahlberg, head of the dairy division at Geneva, would be transferred to the College of Agriculture at Ithaca, N. Y. There, he will continue to devote his time to problems related to the manufacture of dairy products.

Dr. Dahlberg went to Geneva in 1921 when he succeeded the late George A. Smith as head of the dairy division at the Station. Among the principal lines of work initiated by Dr. Dahlberg were studies on the creaming of milk; viscosity studies on milk and cream; the properties of gelatine, particularly with reference to their use in ice cream; the texture of ice cream, sherbets, and ices and the freezing of fruit ice cream; the relative sweetness of different kinds of sugars; and the development of improved pasteurization technics with a study of the effect of pasteurization on the creaming of milk and on other properties.

Prominent in Cheese Research

Numerous studies on cheeses of various types were also carried on under his direction, with particular stress on modifications of procedures looking to the improvement of the quality of both hard and soft cheeses. Outstanding in his cheese investigations was the development of the so-called "Geneva" method for the manufacture of cream cheese. Protected by a public patent, this process is now widely used in the making of cream cheese with a saving of many hours in the operation and the assurance of a product of uniform high quality. More recently, studies have been made on the canning of cheese.

Dr. Dahlberg has also contributed much to a better understanding of the value of blood lines in the breeding of dairy cattle thru a study of the production records of the Station herd. He also used the herd for experiments on various management practices, such as two vs. three milkings daily, hand vs. machine milking, timing of machine milking to prevent injury to the cow and to save labor, and other studies.

CLARIFYING AMENDMENT

Washington, D. C.—In answer to questions from industries concerned, the Office of Price Administration announced July 9 that it has amended Maximum Price Regulation No. 280 (Maximum Prices For Specific Food Products) to make it clear that animal feed processed from cows' milk and composed in excess of 50 per cent in weight or volume of milk ingredients is under maximum prices.

This action, taken in Amendment 28 in MPR 280, merely clarifies the intent of the OPA at the time of the issuance of the regulation. It is taken in Amendment 28 to Maximum Price Regulation 280, and becomes effective July 15.

Government Scientist Wins Borden Award

Dr. Hazel K. Stiebeling (left) assistant chief, U. S. Bureau of Human Nutrition and Home Economics, receives Borden Award—$1,000 and a gold medal—from W. A. Wentworth, director of Industry Relations for The Borden Company, while Miss Jessie W. Harris, president of American Home Economics Association, looks on.

The award—highest annual honor for outstanding research in nutrition—was made at the meeting of the Association's Institute of Delegates at the University of Maryland, College Park, Md., on June 17, 1943.

STOPS OVERHEATED WATER
Reduces Fuel Losses
POWERS Hot Water Tank Regulator
Pays back its cost several times a year
Ends Hot Water Complaints
OVERHEATED water causes complaints, wastes fuel — shortens life of valves and plumbing fixtures and increases deposit of lime in pipes. • Powers regulators will help to reduce these losses. Install them on your hot water heaters. They keep the water at the right temperature. Fuel savings alone often pay back their cost several times a year. As they usually last 10 to 15 years they pay big dividends. Write for Bulletin 2035.
The Powers Regulator Co. Offices in 45 Cities. See your phone directory. 3791 Greenview Avenue, Chicago; 231 E. 46th Street, New York City; 1808 West 8th Street, Los Angeles.
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REVIEW WANT ADS. PAY

N.Y. May Milk at $3.04

Dairymen of Shed Receive Record Return of Above $20,200,000— Price Gain 29.9 Per Cent

An all-time record for the New York metropolitan milk pool was set in May when a uniform price of $3.04 per 100 lbs. yielded a return of $20,211,295.03 for 643,936,480 lbs. of milk delivered by 54,268 dairy farmers. Compilations were made known in mid-June by Dr. C. J. Blanford, Administrator of the New York-Metropolitan milk market area. The record heretofore was held by the pool of May 1942 which yielded a farm value of $17,821,371.90.

"The current pool," Dr. Blanford reported, "is richer by $2,389,923.13 for a gain of 12.8 per cent. The gain in farm value is the result of a uniform rate that is 70 cents higher than the price of $2.34 that applied to milk delivered in May of last year. The rise in price is a gain of 29.9 per cent and was more than sufficient to offset a decrease of 11.2 per cent in the volume of milk received at New York-area approved plants.

"Included in the farm value are payments dairy farmers will receive for butterfat in excess of 3.5 per cent and location payments for delivery in and near the marketing area. The payments, taken together, are worth $635,626.04. In May of 1942, however, they were worth $849,243.75.

"The computed price for May is one cent better than our estimate and exactly the same as the price that was paid for milk delivered in March and April. Usually the seasonal increase in production in the springtime brings seasonal decreases in the uniform price, but it is apparent that the seasonal increase has been absorbed this year in high-valued uses instead of going into low-priced manufactured products.

Largest Month's Volume Shown

"With the volume of fluid milk consumed in the metropolitan area in May at 226,721,936 pounds," Dr. Blanford comments, "the current pool can be credited with the largest quantity of fluid milk sold in any month on record. The volume is 3.8 per cent ahead of that of May 1942 and tops the previous record, recorded in March of this year, by nearly 5,000,000 pounds.

"A decrease of 24 pounds in the average daily delivery per farm acounts in part for the drop of 81,368,142 pounds in the quantity of milk as compared with last year. The pool of a year ago contained 725,304,622 pounds and set a record in volume that has not been challenged this year. A reduction of 3,209 in the number of dairy farmers supplying New York-area approved milk likewise accounts in part for the decrease in total volume. It is estimated that at least half of the withdrawn producers are still producing milk, but their production is flowing to other markets. Adverse milk-producing weather in May contributed to the decline in the average delivery.

"The number of producers who delivered in May, however, was at the highest level since last December when 54,887 supplied the market," says Dr. Blanford. "The number fell to a low of 53,641 in February and since then has climbed upward again. The drop in production, moreover, was not as large as was anticipated in our estimate that the volume of milk in the May pool would amount to 635,000,000 pounds."

Included in the fund distributed to producers in payment for May deliveries was the sum of $3,314.47 paid to the producer settlement fund by cheesemakers who have collected a federal subsidy for manufacturing cheddar cheese.

Look for New June Record

Volume and value estimates by Dr. Blanford of the New York milkshed's June production indicate that dairy farmers will collect at a rate 30 per cent higher than a year ago and that their net return also would be nearly 30 percent richer than the income from June deliveries last year.

Dr. Blanford forecasts that the uniform price would reach $3.02 a hundredweight and the New York pool would contain 672,000,000 pounds of milk.

The farm return from last month's milk, figured at the forecast price and production with an allowance of $500,000 for additional payments for butterfat and delivery in and near the marketing area, should amount to approximately $20,794,000.

"Such a return, if it is realized," Dr. Blanford pointed out, "would establish the June pool as the most valuable on record. The record was set only last month when the May pool yielded a farm value of a little better than $20,166,000. The peak was achieved with a uniform price that was 2 cents higher than the one now estimated for June, but the milk received in May amounted to a trifle less than 644,000,000 pounds as compared with an estimated production of 672,000,000 in June The larger volume accounts for the foreseen increase in value.

Volume May Exceed 1942

"The forecast receipts, in fact, exceed the amount of milk—nearly 669,000,000 pounds—received in June 1942. The anticipated increase in volume, amounting to one-half of one per cent, is the first to be credited to any month in 1943, in comparison with the same month of 1942, and is forecast in spite of the loss of nearly 3,000 producers from the New York pool in the intervening 12 months. The gain can be ascribed primarily to the delayed pasture season which apparently shifted the flush-point of production into June. In 1941 and again in 1942, the flow of milk in the New York milkshed reached its crest in the latter part of May.

"A slight increase in the number of cows that freshened this spring in comparison with usual spring freshenings undoubtedly contributed somewhat to the June increase. Adverse production weather, marked by a 10-day delay in pasturing herds, prevented the additional freshenings from having a perceptible effect on the May volume which was 11.2 per cent behind that of May 1942.

"The cumulative effect of the delay in the grazing season, heavier feeding of grain, and added freshenings was such that when 1943 production hit its highest point in the first week of June the average delivery per farm ranged 10 pounds a day above the 1942 high mark in the last week of May," Dr. Blanford concludes. "The record for production in any month, however, is still held by May 1942 with a total of 725,000,000. The difference is that a larger volume was concentrated in fewer days this year.

"The expected gain in value, however, is the product of an anticipated rise of 30 per cent in the uniform rate of return, which, with the volume only a bit larger, means that the yield also should be up nearly 30 per cent. Last year's June pool resulted in a uniform price of $2.32, 70 cents less than the foreseen rate for June 1943, and a farm value of $16,158,418.28. Included in that sum are the value of the pool at the uniform price and the pool-paid butterfat and location payments of $642,915.53.

WESTINGHOUSE ELECTRONICS

Representatives of the Westinghouse Electric & Manufacturing Co. announced July 7, to a large group of trade paper editors and newspapermen in New York City that their company had consolidated and co-ordinated all of its electronics activities under a group of engineer specialists to expedite wartime applications of electronic devices and to utilize the new developments for post-war uses.

A. C. Monteith, manager of the company's industry engineering department, stated that industrial electronics has become a large industry. He declared that electronic devices would be applied by his company only when they prove themselves superior to time-tried mechanical methods.

A new booklet which listed such devices as lights that turn on and off without touching a switch as persons enter and leave a room; refrigerators to include electronic tubes to destroy bacteria and prevent spoilage; smoke and dust eliminators and wide use of ultra-violet rays for the irradiation of foods, for air disinfection and for treatment and prevention of disease.

In addition to Mr. Montieth, Carl J. Madsen, Gordon F. Jones and Amos J. Germain were other Westinghouse men who explained the contribution of electronics to power rectification, high-frequency heating, communications, electrical protective and control devices, the X-ray, precipitron, steri-lamp and radar.

Chester Davis Resigns

WFA Chief Quits in Protest Over Administration Policy — Marvin Jones Named Successor

Washington, D. C.—Chester C. Davis, War Food Administration head for the past three months, left his post June 28 following sharp disagreement with the Administration's policies with respect to foodstuffs controls. Mr. Davis, drafted for the job by President Roosevelt and widely regarded as an extremely able man, had made known his withdrawal in a letter to the President June 16, who announced the action together with his response on June 28. At the same time it was stated that Judge Marvin Jones had been named as successor.

Both Mr. Davis' and the President's letters were sharply worded, strongly indicating the gap which divided them in the matter of policy. Mr. Davis said:

"Two main causes have borught me to the reluctant conclusion that I will not be able to serve you satisfactorily in my present capacity:

"1. I find that I have assumed a public responsibility while the authority, not only over broad food policy but day-to-day actions, is being exercised elsewhere.

"2. You must have in my position a man who can wholeheartedly advocate and defend the program of broad general subsidies you announced on June 15. I cannot do this for the reason that I do not believe such subsidies will be effective in controlling inflation unless they are accompanied here, as they are in England, by current tax and savings programs that drain off excess buying power, and by tight control and management of the food supply. We do not have in this country anything approaching these conditions."

To this President Roosevelt countered with decided heat on several points.

CLASSIFIED ADVERTISING

RATES: "Position Wanted." 50c. Limit of 50 words; 2c for each additional word. All other advertisements, 5c a word ($1.00 minimum). Keyed ads, 15c extra to cover return postage. The name and address should be included in counting the words.

All payments strictly in advance.

POSITION WANTED

WANTED—Position as production manager with an aggressive responsible organization, desiring the service of a qualified supervisor. College graduate, 30 years practical experience and technical training in the dairy industry, sales experience and executive abilities. Wishes permanent connection with a milk, ice cream, condensed or powdered milk plant. Excellent references. Personal interview preferred. Address Box 496, care this publication. 7-M-3

HELP WANTED

WANTED—Manager for milk receiving station in Maryland. Reply to Box 488, care this publication. 7-M

WANTED—Man thoroughly experienced in farm inspection, procurement of supply and laboratory supervision. Must be thoroughly acquainted with plant operation in the manufacture of ice cream, ice cream mix, dry milk and all other dairy products. Must have experience in dealing with health department requirements and the maintaining of producer good will. Must be under 45 years of age with preferable draft exemption. State amount of salary desired and references. Location: Eastern Pennsylvania. Address Box 490, care this publication. 7-M

Buy U. S. War Bonds

WANTED—Man to maintain and develop wholesale and retail milk business. Must be able to handle and promote sales on 25 routes. This is an opportunity with an established Pennsylvania concern. Submit full information concerning experience and other pertinent facts, as well as amount of salary desired and references. Box 489, care this publication. 7-M

EQUIPMENT FOR SALE

FOR SALE — One Creamery Package pasteurizer, 150 gallon complete; one Cherry-Burrell milk filter, stainless steel; two recording thermometers; one 1½ inch stainless steel sanitary milk pump and motor; one Creamery Package stainless steel milk bottle filler, 48 per minute—45 feet, one 90 degree bend of practically new gravity case conveyor; one hand capper for No. 2 caps; one Standard cap and Seal hooder and ringer; one 250 gallon, one 400 gallon bronze head Creamery Package homogenizer with motor; one 300 gallon National homogenizer practically new stainless steel head, New York City approved with motor; one six-wide C. P. soaker bottle washer, comeback type, just rebuilt like new; one 5x5 Frick compressor complete and with 25 h.p. motor; one 5x5 Frick compressor only; one 8 per minute and one seven per minute milk can washer straightaway with cover replacer; one I. T. cooler, 16 two inch milk tubes 10 feet long; one I. T. cooler, 10 feet long, eight 1½ tubes; one I. T. heater cooler, forty-eight 1½ inch tubes, 10 feet long; one W2003 Universal compressor for methyl chloride, complete with two h.p. motor and two Peerless blowers; three eight-wide Heil bottle washers, 72 a minute; one 90 Mojonnier filler, either 48 M. M. or No. 2 caps; one A. A. Mojonnier filler, No. 2 caps; one Howe scale for 400-can truck or storage tank with registering beam; five 300-gallon Cherry-Burrell stainless steel spray vats; 300-gallon tinned copper and stainless steel receiving vats and covers—1,000 lb.; double compartment tinned copper and stainless steel weigh cans. Room 73, 321 Broadway, New York City. WOrth 2-4975. 7-M

Statistical Review of the New York Market for June, 1943

CONCENTRATED MILKS

DATE	CASE CONDENSED Known br. (case)	CASE CONDENSED Other br. (case)	CASE EVAPORATED Known br. (case)	CASE EVAPORATED Other br. (case)	SWEETND. BULK CONDENSED Skim crlt. price lb.	SWEETND. BULK CONDENSED Wh. crlt. price lb.	Unsw. cond whole milk 40-qt can 10% Fat	DRY SKIMMILK —Spray— Known br. Lb.	DRY SKIMMILK —Spray— Other br. Lb.	DRY SKIMMILK —Hot Roller— Other br. Human	DRY SKIMMILK —Hot Roller— Other br. Feed
June1	— @5.90	5.30@5.40	4.20@4.25	4.20@4.25			10.75@11.00	15½@—	15½@—	13½@—	8½@9
" 2	— @5.90	5.30@5.40	4.20@4.25	4.20@4.25			10.75@11.00	15½@—	15½@—	13½@—	8½@9
" 3	— @5.90	5.30@5.40	4.20@4.25	4.20@4.25			10.75@11.00	15½@—	15½@—	13½@—	8½@9
" 4	— @5.90	5.30@5.40	4.20@4.25	4.20@4.25			10.75@11.00	15½@—	15½@—	13½@—	8½@9
" 5	— @5.90	5.30@5.40	4.20@4.25	4.20@4.25			10.75@11.00	15½@—	15½@—	13½@—	8½@9
" 7	— @5.90	5.30@5.40	4.20@4.25	4.20@4.25			10.75@11.00	15½@—	15½@—	13½@—	8½@9
" 8	— @5.90	5.30@5.40	4.20@4.25	4.20@4.25			10.75@11.00	15½@—	15½@—	13½@—	8½@9
" 9	— @5.90	5.30@5.40	4.20@4.25	4.20@4.25			10.75@11.00	15½@—	15½@—	13½@—	8½@9
" 10	— @5.90	5.30@5.40	4.20@4.25	4.20@4.25			10.75@11.00	15½@—	15½@—	13½@—	8½@9
" 11	— @5.90	5.30@5.40	4.20@4.25	4.20@4.25			10.75@11.00	15½@—	15½@—	13½@—	8½@9
" 12	— @5.90	5.30@5.40	4.20@4.25	4.20@4.25			10.75@11.00	15½@—	15½@—	13½@—	8½@9
" 14	— @5.90	5.30@5.40	4.20@4.25	4.20@4.25			10.75@11.00	15½@—	15½@—	13½@—	8½@9
" 15	— @5.90	5.30@5.40	4.20@4.25	4.20@4.25			10.75@11.00	15½@—	15½@—	13½@—	8½@9
" 16	— @5.90	5.30@5.40	4.20@4.25	4.20@4.25			10.75@11.00	15½@—	15½@—	13½@—	8½@9
" 17	— @5.90	5.30@5.40	4.20@4.25	4.20@4.25			10.75@11.00	15½@—	15½@—	13½@—	8½@9
" 18	— @5.90	5.30@5.40	4.20@4.25	4.20@4.25			10.75@11.00	15½@—	15½@—	13½@—	8½@9
" 19	— @5.90	5.30@5.40	4.20@4.25	4.20@4.25			10.75@11.00	15½@—	15½@—	13½@—	8½@9
" 21	— @5.90	5.30@5.40	4.20@4.25	4.20@4.25			10.75@11.00	15½@—	15½@—	13½@—	8½@9
" 22	— @5.90	5.30@5.40	4.20@4.25	4.20@4.25			10.75@11.00	15½@—	15½@—	13½@—	8½@9
" 23	— @5.90	5.30@5.40	4.20@4.25	4.20@4.25			10.75@11.00	15½@—	15½@—	13½@—	8½@9
" 24	— @5.90	5.30@5.40	4.20@4.25	4.20@4.25			10.75@11.00	15½@—	15½@—	13½@—	8½@9
" 25	— @5.90	5.30@5.40	4.20@4.25	4.20@4.25			10.75@11.00	15½@—	15½@—	13½@—	8½@9
" 26	— @5.90	5.30@5.40	4.20@4.25	4.20@4.25			10.75@11.00	15½@—	15½@—	13½@—	8½@9
" 28	— @5.90	5.30@5.40	4.20@4.25	4.20@4.25			10.75@11.00	15½@—	15½@—	13½@—	8½@9
" 29	— @5.90	5.30@5.40	4.20@4.25	4.20@4.25			10.75@11.00	15½@—	15½@—	13½@—	8½@9
" 30	— @5.90	5.30@5.40	4.20@4.25	4.20@4.25			10.75@11.00	15½@—	15½@—	13½@—	8½@9
T. & A.	5.90	5.35	4.22	4.22			10.88	15.75	15.75	13.75	8.88

N. Y. MILK PRICES

Basic prices for 3.5% milk in 201-210 mile zone in effect in New York City Area under the Federal-State Marketing Agreement used by all handlers in figuring returns for May:

Class	Price per cwt.	Per point butterfat differential
I	$3.50	.04
I (Relief)	2.93	.04
I (Outside)	.30†	.04
II-A	2.55	.073
II-B	2.43	.069
II-C	2.158	.062
II-D	2.172	.062
II-E	2.058	.059
II-F	2.058	.059
III	2.689	.077
IV-A	1.796	.051
IV-B (May 1-15)	2.126	.052
IV-B (May 16-31)	2.295	.056
V-A	1.041	.....
V-B	.607	.....

†Plus uniform price for May, 1943.

Rail & Truck Receipts at N.Y.C.&Metrop. Area
(Statistics of U. S. Dept. of Agriculture)

1942-43	Milk	Fresh Cream	Frozen Cream	Fresh Cond. Milk
May	3,542,459	81,282	4,443	33,271
April	3,378,399	62,546	3,702	43,762
Mar.	3,475,231	59,965	4,876	29,983
Feb.	3,129,092	76,338	3,073	20,446
Jan.	3,393,442	83,048	5,266	24,185
Dec.	3,330,098	78,805	12,124	30,185

Index of Advertisers

A

American Seal-Kap Corporation No. 3 Cover

B

Brown Steel Tank Company.. 230
Buffalo Foundry & Machine Company .....No. 7 Cover Form
C. W. Burckhalter..... 230

C

Creamery Package Mfg. Company 227 and No. 5 Cover

D

Damrow Bros. Company..... 225
DeLaval Separator Company, The .....No. 2 Cover
Difco Laboratories, Inc. 226
C. Doering & Son..... 227

G

General Mills, Inc. 220-221
Girton Mfg. Company 228
Guedelhoefer Wagon Co., John 224

H

Hanovia Chemical & Mfg. Co. 224

I

Illinois Range Company..... 217

L

Liberty Glass Co. The..No. 4 Cover

M

Marwyn Dairy Products Corporation 232
Mojonnier Bros. .....No. 8 Cover

O

Ohio Bottle Cap Co. 231
Owens-Illinois Glass Company 214-215

P

Paterson Parchment Paper Co. 211
Powers Regulator Company.. 233

R

Rogers Co., C. E. 219

S

Self-Locking Carton Company 233
Simmons Dairy Products Ltd. 231
Sorensen Company, The..... 236
Specialty Brass Company.... 223
Stainless & Steel Products Co. 226
Sturdy-Bilt Equipment Corp. 232

T

Tri-Clover Machine Co. 229

W

R. G. Wright Co. 209

EQUIPMENT FOR SALE

FOR SALE — Three Milk Wagons. Green's Dairy, 201 North Highland Ave., York, Pa. 7-M

FOR SALE—60 gallon Pfaudler Pasteurizer or Tank with revolving coil; 100 and 150 gallon Stainless Steel Pasteurizers; 200 gallon Cherry Coil Vat; 300 gallon Wizard (C. P.) Coil Vat with stainless steel lining and tinned copper coil; 550 gallon Jensen Vertical Coil Vat with s.s. lining and nickel coil; Type "B", "J" and "L" Milwaukee Fillers; No. 5 Creamery Package Filler, s.s. bowl, 72 b.p.m.; G-10 Cherry-Burrell Nu-Line Filler, s.s. bowl, 48 to 55 b.p.m.; Model "B" and "C" Mojonnier Fillers; Hooding Machine for cellophane hoods; 5 ft. and 6 ft. Tubular Surface Coolers; No. 4 Peerless Barrel Heater, 12,000 lbs. per hour; 4 Wide and 8 Wide Soaker Type Bottle Washers; C. P. Rotary Bottle Washer, 22 b.p.m.; 300 gallon Nickel Holding Tanks, insulated; Wisner Peerless Can Rinser, Sterilizer and Dryer; 300 gallon Nickel Receiving Vat; E-28, No. 40, No. 70 and No. 71 De Laval Separators; 60 to 400 gallon Homogenizers or Viscolizers; 40 qt. Direct Expansion Freezers. Write or wire your requirements. Lester Kehoe Machinery Corporation, 1 East 42nd St., New York 17, N. Y. Telephone—MUrray Hill 2-4616. 7-M

FOR SALE—3, 8 wide Heil Bottle Washers (72 per); 1, Von Gunten 15,000 lb. Milk Filter; 1, Model AA Mojonnier Milk Bottle Filler (120 per); 1, Model 90 Mojonnier Bottle Filler (90 per); 1, Model B Mojonnier Bottle Filler (72 per); 2, Permutit Water Softeners; 1, York Plate Type Heat Exchanger, complete with Hot Water Set, and Bristol Recorders, Heat Controllers; 1, Roots Connerville Blower complete; 1, Oakes & Burger Straightaway Can Washer; 1, McKinley Straightaway Can Washer; 1, I. T. Milk Cooler; 1, Worthington 5x5 ammonia compressor with receiver and condensors. Box 479, care this publication. 6-M-2

FOR SALE—1 Used Section (14-1½ in. tube and 8-1½ in. tube) Surface Milk Cooler, 10 feet long, together with distributor pipe, trough and covers. Sauquoit Valley Dairy Co., Inc., 491 French Road, Utica, N. Y. 7-M

FOR SALE—Flooded ammonia controls with float valve and surge drum; Meyer 8 wide Jr. bottle washer; Model C Mojonnier filler; Kaestner 4-compartment stainless steel holder; 2, 40 qt. Rork horizontal ammonia ice cream freezers; 1, Ultimate 5-wing cabinet cooler, fan-type; 1, 6 ft. multiple tube I. T. cooler or heater; 6 tube 5 ft. Specialty Brass super economy stainless steel preheater, with automatic temperature control; Two-section 12 tubes 8 ft. Pit Jr. cooler; Northwestern ice cream bar machine; 2, Type L fillers and cappers; 1, 4 tube 10 ft. 1½ in. DX I. T. insulated Wright cooler, stainless steel inner tubes, porcelain outer jacket; LARGE STOCK OF CASE, CAN AND BOTTLE CONVEYORS; Island Equipment & Supply Co., Inc., 101 Park Ave., New York, N. Y. 7-M

Conserve Your Present Supply of Milk Cans!

Rustproof them with—
SORENSEN'S E-P BUTTONS

These buttons operate on the principle of electro-plating. They cause no taints or off flavors. The lactic acid always present in milk or cream acts as the electrolyte. The button instantly sets up a replating action on rust spots in the can. Place one in each can in use, and in your new cans also.

PRICES: No. 103 Sorensen's E-P Buttons: Box of 25, $5.50. Ten boxes of 25 each, $54.00. F.O.B. Minneapolis. Prices on larger quantities on request.

Manufacturers of Sorensen's Retin "CROMATIN"

THE SORENSEN CO., MINNEAPOLIS, MINN.
4033 23rd Avenue, South

FOR SALE—One Sturdy Built Washer—Full automatic infeed and discharge with chlorinator attached. Two years old. A-1 shape, very reasonable. One 150 gallon Wright Grade A pasteurizer. Paddle type agitation. Stainless steel inside, equipped with circulating pump. Garden State Farms, Goffle Road, Midland Park, N. J.

EQUIPMENT WANTED

WANTED—50 to 100 gallon Homogenizer or Viscolizer; Glass Lined or Stainless Steel Tank—500 to 2,000 gallons. Box 493, care this publication. 7-M

WANTED—Cream vat, 400 to 600 gallon size. Have 100 and 200 gallon round approved pasteurizer for sale. Write P. O. Box 405, Sioux Falls, So. Dak. 7-M

SKIM MILK WANTED

We are interested in a regular supply of Skim Milk in any quantity from 250 cans up per day. Will accept a temporary arrangement, but a permanent arrangement is preferred. Box 495, care this publication. M-t-f